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ON

RECONSTRUCTION

IV. HOUSING AND COMMUNITY PLANNING

Final Report of the Subcommittee

March 24, 1944

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IV. HOUSING AND COMMUNITY PLANNING

Final Report of the Subcommittee

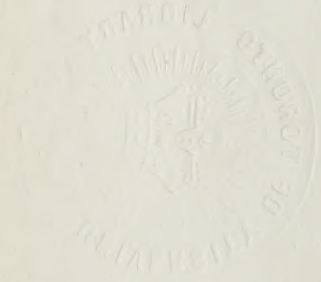
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II. Conservation and Development of Natural Resources.

III. Publicly-Financed Construction Projects.

IV. Housing and Community Planning.

V. Post-war Employment Opportunities.

VI. Post-war Problems of Women.

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IV. SUBCOMMITTEE ON HOUSING AND COMMUNITY PLANNING

FINAL REPORT

Introduction

Attention was first given to the subject of housing through the machinery of the Committee on Reconstruction when a special panel, under the chairmanship of Mr. F. W. Nicolls, was set up within the Subcommittee on Postwar Construction Projects.[1] This panel held three meetings, and the report which it prepared on the nature of the housing and town planning problem in Canada was used as the point of departure by the new Subcommittee on Housing and Community Planning. In January, 1943, a separate Subcommittee on Housing and Community Planning was established by the Advisory Committee on Reconstruction. The Subcommittee met on only five occasions, but the meetings were so arranged that they comprised twenty-seven sessions in all.

Membership

The membership of the Subcommittee on Housing and Community Planning was as follows: C. A. Curtis (Professor of Economics, Queen's University, Kingston), Chairman; E. R. Arthur (Professor of Architecture, University of Toronto); J. S. Galbraith (Town planning specialist, York Mills); A. J. B. Gray (Deputy Minister of Municipal Affairs, Ontario); B. H. Higgins (Professor of Economics, McGill University); G. S. Mooney (Executive Director, Canadian Federation of Mayors and Municipalities); F. W. Nicolls (Director of Housing, Department of Finance, Ottawa); M. Parizeau (Architect, Montreal); J. M. Pigott (President, Wartime Housing Limited, Hamilton); S. H. Prince (Professor of Sociology, Dalhousie University, and Chairman, Nova Scotia Housing Commission, Halifax); J. d'A. Richard (Ecole Sociale Populaire, Montreal); C. B. K. Van Norman (Architect, Vancouver); with L. C. Marsh as Research Adviser. J. E. Mackay was secretary of the Subcommittee, with Miss E. Sheldon as assistant secretary in the later stages of its work. There were two changes in membership during the Subcommittee's existence. Mr. H. F. Greenway of the Dominion Bureau of Statistics was added; and Mr. J. M. Pigott withdrew before the completion of the Subcommittee's interim report.

Terms of Reference

The terms of reference of the Subcommittee on Housing and Community Planning were:—

To review the existing legislation and administrative organization relating to housing and community planning, both urban and rural, throughout Canada, and to report regarding such changes in legislation or modification of organization and procedure as may be necessary to ensure the most effective implementation of what the Subcommittee considers to be an adequate housing program for Canada during the years immediately following the war.

Nature of the Report

The task thus defined is difficult and far-reaching, and would not have been possible without much co-operative effort on the part of the committee

[1] The members of the panel were F. W. Nicolls (chairman), E. R. Arthur, C. A. Curtis, J. S. Galbraith, Ralph C. Ham, G. S. Mooney, Marcel Parizeau and S. H. Prince, with L. C. Marsh as research adviser. Mr. C. B. K. Van Norman was added later. Mr. Ham died in June, 1942, and was succeeded by Mr. L. J. Green, who served until the panel was dissolved.

members. Many of them formed panels at various stages in the work to draft recommendations on particular matters. The major conclusions, brought together in the summary, are the result of extensive group and committee discussions through which agreement was obtained on all the main principles in each field. The editing of the report as a whole was then left in the hands of the Chairman and the Research Adviser. The very heavy task of preparing the final text was undertaken by the Research Adviser, and the Subcommittee is greatly indebted to Dr. Marsh for this, as well as for considerable organizational work during the course of the sessions.

As the understanding of the task grew and the need for factual material became increasingly apparent, it seemed desirable to incorporate as much of the information as possible into an organized report. In spite of the widespread interest in housing and town planning that is apparent in all quarters, there has not been available in Canada a comprehensive treatment of the subject. This is needed for adequate public discussion as well as for guidance in framing legislation, and it is hoped that the size of the present document may have some justification on this account.

It has been thought most convenient to present the report as a whole in three sections:—

1. *Section A* is the main report, incorporating the principal facts and considerations (including the summary of findings and recommendations which follows hereafter). In this, three sections have been separated—on the background of previous and comparative experience, the dimensions of the housing problem, and legislative and administrative requirements—so that the reader concerned particularly with any one of them may turn to it directly.

2. *Section B* brings together subsidiary descriptive material on a number of topics, which have influenced the work of the committee, but which it has not seemed necessary to incorporate in the main text. These memoranda may also be of informational value for readers interested in the topics dealt with.

3. *Section C* is largely a statistical appendix. A reference index to all tabular material has been added.

Acknowledgment of Assistance. Mr. J. E. Mackay gave continuous and efficient service as secretary of the Subcommittee and of the preceding panel, and Dr. O. J. Firestone contributed unremitting labours as assistant to the Research Adviser in the preparation of extensive statistical materials. Special thanks are due to other members of the staff of the Advisory Committee on Reconstruction for a series of tasks involved in the preparation of the report. It is also desired to acknowledge the valuable assistance contributed by Miss Elizabeth Sheldon to the Chairman in the examination of recent history of housing legislation in Canada, Britain and the United States.

Thanks are due to members of the staff of the National Housing Administration for assistance at a number of points; and to the staff of Wartime Housing Limited for information and a special memorandum. Separate mention must be made of the Dominion Bureau of Statistics, several branches of which (including Business Statistics, Population Census and Agricultural Census) contributed ready assistance in response to our requests. In particular the report owes much to the valuable material of the 1941 Housing Census, and to the co-operation of Mr. H. F. Greenway and his staff in making available for us a number of special compilations. Other contributions from several sources are acknowledged in the text.

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SUMMARY OF FINDINGS AND RECOMMENDATIONS

The Subcommittee is of the firm opinion that a housing program of large dimensions will be necessary for Canada after the war. The statistics reviewed in these pages and many local reports combine to portray the extent to which we have fallen behind in building and providing housing accommodation, and the needs of several kinds which will have to be remedied when labour and materials are available. The desire for better housing and better living standards generally is a post-war objective which is firmly rooted in the minds of people in all ranks of life. Construction work in the housing field can be of particular importance, both in providing employment opportunities for men demobilized from the armed forces and for men released by war industries, and as a productive vehicle of both public and private investment such as will be needed for full employment policy under peacetime conditions. Finally, Canada has lagged behind the example of European countries, of Great Britain, and of the United States, in providing greater governmental assistance for housing as a matter of welfare and public concern. These substantial reasons put housing into the forefront of domestic post-war plans. 1

The Subcommittee believes that provision for housing will have to include home ownership, home improvement, slum clearance, low-rental projects, and rural and farm housing. It is clear that while the problem may be more severe in one field than in another, there are needs in all fields and all groups will have to be provided for in an equitable and comprehensive plan. The backlog accumulated from the past and the program needed for the future are so great that we cannot afford to concentrate only on one branch to the exclusion of others. It seems indicated, however, that special attention, in the advance preparation of plans, should be given to low-rental housing and farm housing, in which this country has had little or no experience to date; and also that home and farm improvement should be made ready the most urgently in advance, because of its immediate applicability to the first period of demobilization. 2

It has been assumed by the committee that the great bulk of housing, whether publicly, privately or co-operatively owned, will be built by private contractors and corporations. Experience has shown that (with the qualifications as to design expressed elsewhere) public housing has been most successful and effective where the design and building of the houses has been organized through the usual professional and construction channels. It is believed, however, that all methods of participation in the financing and operation of housing schemes will be needed and should be encouraged; public, private and co-operative. In both public and private fields, adequate and modern housing programs will demand bold action and initiative. 3

The committee places in the forefront of all housing projects the matter of town and community planning. Town planning is essentially the matter of using land in its most efficient and socially desirable way. Many people regard town planning as a matter of parkways, arterial roads, and similar measures. But town planning should mean the utilization of all land in terms of long-range and carefully considered objectives. Obviously, this process must extend beyond the more or less arbitrary boundaries of our present cities and unite with organized rural planning wherever appropriate. The institution of at least the essentials of town planning is both preliminary and basic to housing developments. The committee, therefore, regards it as 4

a step which must be taken at the earliest possible moment in preparation for post-war housing projects; and it must be added that on account of the constitutional division of powers in Canada, town planning requires the co-operation of all levels of government in the federal system. It is equally true of modern town planning that it requires innovatory legislation and a spirit of initiative on the part of both citizens and government. Only a wider appreciation of the nature and techniques of town planning will produce the co-operative action necessary from federal, provincial and municipal governments. Here again we are convinced that action at one level of government alone, whichever it may be, will not suffice to gain results.

5 The different branches of housing policy are not yet as widely understood as they should be, although in general terms no post-war program is the subject of more enthusiastic endorsement. It is important to recognize that actual achievement of great numbers of new houses constructed and operated on a sound basis depends upon a reasonable and co-operative division of labour between the three levels of Canadian government. A crucial part of this problem is the distribution of the financial burden. With the existing distribution of taxing powers it is inescapable that a major and possibly total part of public investment in housing should come from the Dominion Treasury. Within the restrictions of their present tax structure, virtually no local governments are able to assume further social service expenditures; almost all cities have something to gain from the economic advantages of town planning and urban redevelopment, it is true, but the results of these cannot be expected for some time. Some of the provinces have stronger financial capacity than others, but they are still comparatively limited. A national reallocation of taxing powers would affect these conclusions, but this subject does not come within the competence of the committee. It believes, however, that the assumption of primary financial responsibility and initiative by the Dominion government is quite consistent with active participation by provincial governments without any impairment of their constitutional rights.

6 Finally, while stressing the desirability of as much uniformity of procedures as possible in the interests of efficiency and fruitful comparison of experience, the committee counsels the encouragement of decentralized administrative machinery, both provincial or regional and at the local levels. Within the framework of general administrative and financial policies, as much independent control as is feasible should be recruited and exercised from within the local community. Projects emanating solely from the central government will never carry the continuing interest of city or village in the same way as projects planned and developed by local citizens and residents. Accordingly, the use of local and provincial organizations, of advisory bodies representative of all groups, and informed and educational publicity, are integral parts of town planning and housing programs for the future.

I. Factual Aspects

A. Postwar Needs and Programs

7 *Basis of Programs.* Canada requires a three-fold program, for both residential housing construction and town and community planning; for (*a*) the principal metropolitan centres (including the satellite communities) and the other large cities; (*b*) the smaller towns and municipalities; and (*c*) the farm areas. In round numbers, the dwelling units in these three divisions of the country at the time of the last census were 972,000, 560,000 and 728,000 respectively. There are considerable difficulties in separating the available statistics into this form, but special computations and estimates have been particularly made for the metropolitan aggregates and the population in farm areas. (Probably special provision should also be made for a fourth

section of the population. Brought together for census purposes as the "non-farm rural" group, this includes actually a varied range of settlements and residential clusters which are of frontier as well as rural character. Important enough to total nearly 400,000 dwelling units, they are accorded separate mention where relevant.)

It has been necessary to relate the principal estimates of urban needs to 8
the major cities of the Dominion (of which there are 27, with populations of over 30,000, totalling 810,000 dwelling units in all) rather than the metropolitan areas. The differences between this aggregate, the metropolitan centres (comprising about 843,000 dwelling units), and all municipalities of urban character, are explained in the text.

For the purposes of calculation only, the estimates have been based on 1946 9
as the first full year of construction in a comprehensive program. This procedure, however, does not seriously change the size of what would be a minimum urban program in the first year or two, if these come earlier than 1946. The accumulated deficit would be a little smaller, but the number of units built in these first years would simply make a greater contribution towards reducing it.

The figures reproduced in the present summary are those made on a mini- 10
mum and restricted basis. In general throughout the report, where alternative assumptions present themselves, the lower one has been adopted. Where reasons exist for possible consideration of larger figures, these have been indicated in the text.

1. *Urban Housing Needs.* (Chapter 6).

In assessing the required housing program, it is necessary to distinguish 11
between (*a*) the accumulated needs of various kinds, i.e., the backlog arising from past and present deficiencies, and (*b*) the current annual needs to provide for replacements and for normal population increases, which will continue from 1946 onwards.

i. *Replacement of substandard and slum dwellings.* Subject to the limita- 12
tions set out in detail in Chapter 4, it is estimated that a minimum rehousing program (including slum clearance) requires 125,000 units in the major cities; and another 50,000 in the smaller cities and towns. For the purpose of comparison, it may be mentioned that in the major cities alone the number of dwellings recorded by the census as being in need of external repairs or lacking adequate plumbing facilities exceeded 250,000.

ii. *Elimination of overcrowding.* On the basis of the standard definition 13
of overcrowding, taking no account of actual size of rooms or conditions of dwellings, and on other assumptions explained in Chapter 6, the figure of 55,000 new or additional units in the major cities is set as the minimum essential to make a contribution towards providing doubled-up families with separate living quarters. No account is taken of further units which might be required for non-family household groups at present living in shared accommodation. A corresponding minimum allowance for overcrowding in the smaller cities and towns is placed at 20,000.

iii. *Building deficits.* Making no allowance for replacement of obsolescent 14
units, or for the requirements of non-family groups, current building since the war is about 5,000 units below apparent annual requirements; this will create a deficit on this account of about 23,000 units by 1946.

In addition to estimated normal city growth, the population in the major 15
Canadian cities will have increased by about 300,000 war workers and their families by 1946. Assuming that only a proportion of these persons will wish to leave these cities after the war, the need for this special increase is placed at 35,000 dwellings.

16 To assure flexibility for normal shifts of population within the cities, it is necessary to retain continuously a small number of vacancies. Assuming only two per cent as the average for this rate would add another 29,000 dwellings in all urban centres to bring them nearer the normal conditions. This figure, however, has not been added to the computation of the minimum backlog.

17 *Total urban backlog.* (i-iii). The total program to deal with accumulated needs, from the above items, but still making no allowance for needs arising annually after 1946, will thus be of the following dimensions:

	Major Cities	Smaller Centres	Total Urban
Substandard and Slum Clearance	125,000	50,000	175,000
Elimination of Overcrowding	55,000	20,000	75,000
Building Deficits (up to 1946) *(a)*	(50,000)	(8,000)	58,000
Total Backlog	230,000	78,000	320,000*(b)*

(a) Excluding any allowance for vacancy rate. Division between major cities and smaller centres estimated.

(b) Including housing requirements in non-incorporated parts of metropolitan areas (12,000).

18 iv. *Current annual requirements from 1946 on.* On the basis of information on family formation during the last decade, annual requirements on account of population increase can be placed at 24,000 families for the same area as summarized above, again making no allowance for new non-family household groups.

19 Finally, some allowance must be made for the replacement of obsolescent houses apart from those in slum or blighted areas. An average life-expectancy of 50 years would merit the use of two per cent per year for this factor. Although there is evidence in such figures as are available that the existing supply of houses is older than is often supposed, it is assumed that only half of the houses at or beyond the level where replacement is necessary are actually to be replaced. This results in a figure of 13,500 per year, which ought to be increased as time goes on, if we are to overtake accumulating needs on this score.

20 *Urban program for first post-war decade.* It will, of course, take time to liquidate this substantial backlog, and possible divisions of the program have been worked out for the first ten years. It must be remembered that within such a period provision must also be made for the additional requirements year by year to take care of population increases and obsolescence of the existing housing supply. (As indicated above, this is of the order of 37,500 new dwellings per year if the rate of urban family formation which was experienced during the last decade continues after 1946.)

21 A second element in the total program is the amount of new housing required for the rural and frontier areas not including farms, referred to above. The requirements for this section of the country as of 1946 are estimated at 23,000 dwelling units with annual increases of the order of 6,000 a year if the population continues to grow at the rate of the last decade.

22 A complete urban program thus constituted must contemplate the construction of 606,000 housing units in the first decade. This assumes a program which covers current needs as estimated but reduces only half of the backlog in ten years. On the basis of a more liberal interpretation of available figures, a more extended attack on the elimination of obsolete and overcrowded dwellings, or the setting of a higher standard for new housing requirements, a program of much larger dimensions could be envisaged. (The total column may be interpreted as "urban" in the sense of all non-farm housing. Non-incorporated districts of metropolitan areas are included in the "urban" column, not in "non-farm rural".)

	Urban	Non-farm Rural	Total
Half of backlog, as of 1946	160,000	11,000	171,000
Accumulating current requirements, 1946–1956	375,000	60,000	435,000
Total	535,000	71,000	606,000

This target of 606,000 units is smaller than two estimates of Canadian 23
needs which have been made recently: one by an American housing authority, and one by the Ontario Association of Architects. It is also lower than programs projected for the post-war period by Great Britain, the United States and New Zealand, if these are placed on a proportional population basis. Adjusting the British and American figures downwards, and the New Zealand figures upwards to put them in terms of the Canadian population, comparable Canadian programs would involve a minimum of 750,000 units, with a possible maximum of 1,000,000 units in the first post-war decade.

The immediate recommendation is that a minimum program of 50,000 units 24
(which may be expanded to 100,000 units if circumstances warrant) be aimed at for the first full construction years of the post-war period.

2. *Farm Housing Needs.* (Chapter 7)

Using such criteria as are available from recorded information, the minimum 25
number of new farm dwellings required to meet an adequate standard of structure and accommodation is placed at 125,000; of these, 100,00 are for the replacement of obsolescent houses, and 25,000 towards providing separate units for doubled-up families. Both of these figures could well be set much higher. The total number of farm dwellings rated as in need of external repairs at the time of the last census was 288,000, and this takes no account of the internal conditions and facilities of the houses. The figure would also have to be revised if a great increase in farming or new settlement is to be contemplated.

These farm housing needs are additional to the urban requirements esti- 26
mated above. Possible combinations of urban and rural programs over the first decade are discussed in the text.

3. *Improvement and Repair Programs.* (Chapter 8)

Judging from an assessment of the census data of various types, the number 27
of urban dwelling units requiring substantial improvement or repair totals 355,000; this figure includes the smaller towns as well as all the cities and non-incorporated parts of the metropolitan areas. A comparable estimate of the number of farm dwellings which should be brought within an improvement and repair program is 188,000. These totals include no units computed elsewhere as coming within rebuilding or new construction programs.

On the assumption that the costs involved would average $500 per urban 28
unit, and $300 for the farm dwellings, this would represent an expenditure of $177,500,000 and $56,400,000 respectively; or a total of $233,900,000. In round figures this possible expenditure of a quarter of a billion dollars, if a program were actively organized and taken up, could be of special importance in the years of immediate transition after the war. It may be noted that it includes no figures for equipment and installations involved in farm electrification; some estimates on this subject are included in the text.

4. *Combined Housing and Improvement Program.*

Preliminary computations have been made, both of the total expenditures 29
involved in the first years of the building program, and of the volume of employment which would be provided. Some alternative assumptions as to the scale and make-up of the program which would condition such figures, are

examined (Chapter 6). The most critical determinant of the distribution of the long-range program is the course taken by production and employment in the post-war years, and the amount of public investment necessary to maintain stability. Figures which have some degree of probability are set out in order to illustrate the important principles of policy involved (Chapter 6).

B. Income Groups and Housing Policy (Chapter 5)

30 A basic distinction for housing policy which has been verified by experience in many countries is that between three groups, (*a*) those who can afford to build their own homes without assistance; (*b*) various middle groups who are able to pay an economic rental, i.e. a rental which will meet the costs of house-building as a commercial venture, or with appropriate assistance to finance the ownership of homes; and (*c*) income groups who cannot afford to pay the rents prevalent for satisfactory housing, and who, therefore, live in slum or overcrowded conditions if public housing projects are not available. There is some overlapping in the middle group between those desirous of owning their homes, and those who prefer to live as tenants. There is also a small group, in both rural and urban areas who may be too poor even to afford assisted housing at rates so far achieved on this continent.

31 The extent to which these facts condition the existing housing situation and future housing policy is not sufficiently realized, nor has Canadian analysis directed solely to these points been made hitherto. It is, therefore, recommended that the material on this subject, which has been carefully defined and assembled, should be examined by all government agencies interested in housing, and also made available for public study.

32 At the same time, however, the committee wishes to emphasize that local and regional surveys are needed to give appropriate weight to the variations from the national averages reviewed herein. (Figures for the major cities are listed, and the principal variations commented upon, in the text.)

33 *Metropolitan tenant families: lower third.* A special measurement of the lower third of all tenant groups in the twelve metropolitan areas of Canada (for 1941) shows that the upper income boundary of this group was generally not higher than $1,200. In this sector the earned cash incomes of more than half was typically $500 to $1,000, and twenty per cent earned less than $500 a year. The average rental paid by this important section of tenants in Canadian cities was about $19 a month. But in terms of the proportion of income which it is generally agreed among housing authorities should not be exceeded for rents, a desirable average rent for this group should not be higher than $12 a month. At least in average terms, this is the kind of figure at which public low-rental housing projects in Canada must aim if they are to meet the facts of income for the principal group concerned. It is noteworthy that among the 177,000 tenant families who comprise this lower third of Canadian metropolitan tenants, 89 per cent were paying more than the desirable proportion (one-fifth) of their incomes for their housing accommodation; and this accommodation is, of course, by no means satisfactory in all cases.

34 *Metropolitan tenant families: middle third.* A comparable measurement shows that incomes of the middle group of tenants in the largest Canadian cities are typically between $1,200 and $1,800. Sixty per cent of these tenant families had incomes below the $1,500 level, and thirty per cent had incomes of $1,500 to $1,800. The average of the rents being actually paid by these families is $23-$24, which is very close to the rent which they should be paying as a proper proportion of income. There is, however, a wide dispersion from the average in this group, as is shown by the fact that 50 per cent of the total were paying a disproportionate rent (i.e. more than one-fifth of family income). Since half of this group were paying rentals between $20 and $35, it is true to say

that this rental range is typical in a certain sense of Canadian cities. It is a highly important fact, however, that it is typical, and reasonable, only for the middle third.

Owned properties. The average value of owned homes in the twenty-seven 35
major cities of Canada (including only those with mortgages, which are 47 per cent of the total of owner-occupied homes) was $3,640 in 1941, and the average amount of the unpaid mortgage $1,903. While these figures are smaller than are usually supposed, there is a very wide range of variation, both from these averages and among different cities. The average cost of acquisition and maintenance of owned homes is subject in practice to much regional variation. But in relation to the typical rents paid and payable by families of different income levels there is evidence that home ownership has not been within general reach of families whose incomes are below $1,500 a year. It is to be noted that real estate values have been subject to a downward trend, at least for a decade prior to the war.

Existing legislation. Houses built for ownership under Part I of the 36
National Housing Act during 1938-1941 have averaged in value $3,950; payments covering principal and interest (but not repairs and maintenance, or taxation), were of the order of $20 to $26 a month. The rents paid by the N.H.A. home owners while they were tenants show a fairly wide range, but are commonest within the group $20 to $35 a month. (Changes in N.H.A. provisions since 1942 are referred to separately in the text.)

The special houses built by Wartime Housing Limited in industrial areas 37
which have been subjected to abnormal population increase, have typically rented at from $22 to $30 a month. A considerable proportion of the tenants of these houses formerly paid less than $20, but the greater number also appear to have come from the rental range of $20 to $35.

While each of these developments has made a contribution to the urban 38
housing problem, neither has extended to any great extent to meeting the need of the lower wage groups. The better paid manual workers, and clerical and white-collar groups, have alone been able to take advantage of housing constructed under Dominion housing legislation to date. The important fact that Part II of the National Housing Act was never successfully utilized to build low-rent houses has been given special consideration in framing the recommendation made on this topic elsewhere.

Family size. One of the principal qualifications of average income figures 39
is size of family. Evidence appears clearly in several of the computations made (Chapter 4) that the larger families suffer the most heavily from overcrowding, and are also the most liable to pay excessive rents. Neither the National Housing Administration nor Wartime Housing has made any special provision for large families to date. It appears that housebuilding in the past has not catered sufficiently to the needs of large families, and the provision of appropriate proportions of dwelling units suitable for the larger families should be a feature of all future housing programs.

II. Legislative and Related Action

Basic preliminaries. Three matters are regarded as of such general impor- 40
tance for the whole field of housing and town planning that they should be stated separately.

(*a*) Effective town planning measures are essential for the success of housing 41
projects, in the small as well as the large cities. Since this applies also to many other projects of a capital nature, in both rural and urban areas, it is essential that steps should be taken to encourage and implement town planning provisions immediately, so that work on sound housing projects can begin immediately the war ends.

42 (*b*) In the interests of efficiency in administration, it is strongly recommended that all Dominion legislation relating to housing should be reconstituted and placed in one statute, which can be divided into appropriate parts. In conformity with this also, there should be one co-ordinated division of government responsible for all Dominion housing activities. United States experience, which has passed through various stages of diffused action and divided authority, which has now been adjusted by co-ordination, is conclusive on this point.

43 The requisite unit for Dominion participation in town planning promotion should be closely related to the Housing Division, but separate as to powers and administration, i.e. the Housing Division should not be subordinate to the Town Planning Agency, nor vice versa. Because their functions are of long-range and continuous character, the two agencies should be set up in one of the permanent Departments. It is not considered desirable, however, that this should be the Department of Public Works, in its present form.

44 (*c*) Since nearly all branches of a post-war housing and town planning program require the participation of provincial as well as municipal governments, it is recommended that the Dominion government, as soon as its policy on housing and town planning has been determined, take all necessary steps to confer with the provinces on the financial and administrative arrangements involved in a nation-wide program.

45 It is suggested that a desirable method of continuing Dominion-provincial and inter-provincial collaboration in what must necessarily be a long-term program, would be an annual conference on the whole field of Housing and Town Planning, with special provision at each session for rural and farm aspects of the subject on the agenda.

1. *Town Planning.* (Chapter 7).

46 (1) *Dominion Town Planning Agency.* A Town and Community Planning Agency should be established immediately in an appropriate department of the Dominion government, and equipped with all necessary facilities for the promotion and co-ordination of town and community planning throughout the country. In particular it should carry out functions in the fields of information, research and advisory services (further elaborated in the text), in closest possible co-operation with the provincial governments.

47 (2) *Provincial and municipal governments.* Since the necessary legislation and techniques required for adequate town planning are not in operation anywhere in Canada and since few are acquainted with their requirements, these have been set out in detail in the text. In particular they relate to the functions of a provincial Town Planning Bureau; requisite types of provincial enabling legislation and supporting measures; the nature of a master plan; and the composition and functions of municipal Planning Departments and Planning Commissions.

48 (3) *Financing of land acquisition for urban redevelopment.* The Dominion government should give financial assistance, in the form of long-term loans at low interest rates, for large-scale assembly, acquisition and clearing of land, slums and blighted areas. These areas will be determined by the master plan, and eligibility for such loans will be determined by regulations formulated by the Dominion Town Planning Agency. If plans meet necessary requirements, money should be loaned to the municipality by the federal government for the acquisition of such land, but not for the construction of any buildings.

49 Long-term capital at low interest loaned to the municipality would enable the municipality to acquire the land in question and the loan would become a lien on the land designated for acquisition. (It is to be understood that some land may be in rural areas.) The loans may be liquidated by repayment

of moneys received by the resale of the land to public or private agencies for redevelopment purposes prior to maturity of the loan. It is also recommended that federal funds be made available to municipalities for advance planning, including preparation of master plans, working drawings, specifications and financial planning, in connection with housing and urban redevelopment.

(4) *Public education.* It is desired to emphasize that legislation, even 50
at all three levels of government, will not be enough to ensure the success of town planning. It must be understood as an economic problem of taxation and rental values, as well as of physical layout; and of positive development plans, not merely the administration of zoning regulations and by-laws. The processes by which town plans are built in the first place, and administered later, must be so devised as to elicit the interest and co-operation of all groups of the public concerned.

(5) *Training and personnel.* Canada has an altogether inadequate supply 51
of persons properly trained in town-planning techniques, and of junior personnel able to assist them in future administration. It is recommended that the Dominion government make available a fund for assistance to universities and other institutions able to accommodate appropriate students. It is recommended also that the Town Planning Agency recommended above, as one of its first functions, should organize a model curriculum for the training of town planning personnel, so that an immediate step would be taken in recognizing the qualifications of such persons.

2. *Home Ownership.* (Chapter 8).

(1) The principle of government assistance to housing construction for 52
ownership as exemplified in Part I of the National Housing Act should be continued during and after the war; but changes should be incorporated in the Act or the administrative regulations to extend the scope and area of this assistance.

(2) Loans should be made available up to 90 per cent of the loanable 53
value, with a maximum loanable value of $6,000; for undertakings over $6,000 the ratio of loan to loanable value should decrease by a sliding scale. The maximum period for amortization of loans should be extended to 30 years; and the effective rate of interest to borrowers should be reduced from its present rate of 5 per cent.

(3) Mortgage insurance, either as a supplement to the present provisions, 54
or in certain circumstances as a substitute to capital participation by the government, should be considered as an element in assisted home ownership policy. The rate for this insurance should be set at the lowest level possible, in the light of the successful experience with this type of protection when applied to a large program, which has been demonstrated in the United States.

(4) Consideration should be given to the institution of a simplified form 55
of personal mortgage insurance, to protect the home purchaser against loss of equity in the event of his death before the liquidation of the mortgage. As a guarantee against a hazard which deters many who might otherwise undertake home-purchase, this would go far to encourage patricipation in the facilities of Part I of the National Housing Act. If a suitable policy at a sufficiently low rate is not obtainable from the private insurance companies, it is recommended that the Dominion government should create and administer such a policy.

(5) Proper neighbourhood and site planning should be prescribed as a 56
prerequisite for the approval of home ownership loans, and the details of what will be regarded as adequate planning made explicit in the Act or its regulations.

57 (6) With a view to the improvement of technical supervision during construction, this matter should be reviewed by government departments with experience in this field, including the provincial governments, and a consolidated procedure established. To cope with post-war programs, it is essential that supervisory personnel should be strengthened by the addition of properly qualified inspectors.

58 (7) It is essential that there be an improvement in design in residential building, particularly in the small house field. Architects should be encouraged to aid this process by participation in government-sponsored competitions, by research, and by the provision of type plans which could be available to Housing Authorities and to the public at a reasonable rate.

59 The National Housing Administration should continue to encourage better and more flexible house design and demand a more scientific and intelligent use of materials and higher building standards. It should also act as a clearing house for all progressive developments in this field, circularizing from time to time the housing interests in the building industry with the latest developments in sound and economical construction methods. The effect would be better integration within the building industry, better-constructed homes, and improvements in group lay-out and street design throughout the country.

60 (8) In co-operation with the provincial governments, means should be sought for establishing more uniform, simpler, and less expensive foreclosure proceedings.

61 (9) With a view to facilitating the participation of corporations, insurance companies and other appropriate bodies in the construction and management of housing estates, the interpretation of the term "lending institution" should be extended to include any approved trustees of trust funds. It should also be explicitly stated that Building Societies are included with limited-dividend corporations eligible for benefiting under the terms of the Act. (Special provision for co-operative associations organized for housebuilding purposes is referred to below.)

3. *Low-Rental Housing.* (Chapter 9).

62 (1) A complete revision of Part II of the National Housing Act should be undertaken with a view to the inauguration of a comprehensive low-rental housing program.

63 (2) Local Housing Authorities should be established as the agencies for the operation of low-rental housing projects in the areas concerned. These Authorities should be autonomous bodies so far as their business operations are concerned, but otherwise working in relationship with the city council or other local governments. Consideration should be given to a model charter which could be recommended to the provinces, to promote the attainment of reasonable uniformity, and to assist the framing of adequate legislation for what for most Canadian municipalities will be an innovation.

64 Given the approval of the provincial government concerned it should always be permissible for the Housing Authority to be so constituted as to cover a number of adjacent or related municipalities, also county, school or other large districts, where this is appropriate or convenient.

65 It is recommended that membership of the Authority should be kept small, but that desirably three of the members should be appointees of the local, provincial, and Dominion governments respectively. In the choice of appointees, the special contribution which may be made by women interested in housing conditions and in satisfactory housing design, should be borne in mind.

66 (3) Loans for capital costs for low-rental undertakings should be provided directly by the Dominion government, at the lowest possible interest rates, desirably the current rate for long-term government bonds plus a small charge for administration.

(4) The financial clauses of the Dominion statute should include prescrip- 67
tion of the procedures under which current construction expenditures may be advanced. Consideration should be given to (*a*) government guarantee of such advances from the commercial banks, and (*b*) direct provision of such money at short-term rates of interest.

(5) Local Housing Authorities should not be exempted from real property 68
taxation. The basic principle of local taxation for public housing projects should be that the project will not be taxed above the average level which existed before in the rebuilt area concerned, provided that the density of occupancy in the area is not substantially increased. The Authority should contribute to the local government amounts sufficient to cover any additional costs of local services (schools, police, etc.), provided such amounts do not exceed the city average of per capita taxation for the supply of such services.

(6) With a view to assisting slum clearance and the best location of each 69
housing project, a special Development Fund could be set up, to be utilized under appropriate regulations as grants to municipalities to cover part of the costs of surveying and drawing of sketch plans for low-rental projects. It should be a condition for the receipt of such grants (*a*) that the municipal government or governments concerned undertake to contribute 25 per cent of the development expenses and (*b*) that they undertake to set up a Local Housing Authority, in the form satisfactory to the purposes of the Act, and within a specified time, to administer the completed project. Where more than one local government is concerned, it should be permissible for an appropriate agreement to be arrived at between the authorities involved.

(7) The provincial governments should be invited to review the powers 70
of condemnation and land acquisition possessed by their municipal governments, with a view to their special application to blighted and slum areas, and rehousing projects.

(8) (*a*) The subsidies required for the purpose of permitting rentals to be 71
set lower than the economic or commercial level should be provided by the Dominion government in the form of annual grants. These would be made to local Housing Authorities for projects defined by reference to the income limits of the tenants and the construction costs of the projects.

(*b*) It is further recommended, however, that modifications should be estab- 72
lished from the principle employed in some countries that an individual project must not make a profit. Instead, any surpluses realized in a given area should be returnable to a national Low-Rental Subsidy Fund, which could be used for the general purpose of furthering low-rental housing as the Minister in charge might direct.

(9) It is strongly recommended that the rentals in public housing projects 73
should be established on a "graded" basis, rather than in simple proportion to income. The advantages of such policy are set out in the text.

(10) The provision of proper personnel for the management of low-rental 74
projects or estates is of great practical importance. Consideration should be given to the setting up of training schemes for such personnel (male and female) at the earliest opportunity, having regard to the recruitment of such persons both from the armed forces and from war industries at the time of demobilization. The experience of Britain, the United States and other public housing schemes should be consulted in setting up training and recruitment specifications.

(11) Limited-dividend housing corporations, in appropriate circumstances, 75
and subject to the approval of the provincial government in the area concerned, should be eligible for operation and incorporation as Housing Authorities.

4. *Farm Housing.* (Chapter 10)

76 (1) The principles of both Part I and Part II of the National Housing Act should be reviewed, and redrafted in sections of the codified Act specifically reserved for farm application.

77 (2) Assistance to home building as exemplified in Part I of the Act and the Home Improvement Plan should be liberalized for the building of residential dwelling units on farms, by (*a*) subsidy to reduce the rate of interest below that otherwise applied to urban loans, (*b*) capital subsidy, or (*c*) the assumption of the costs of mortage insurance by the Dominion government in the case of farm loans thus defined.

78 (3) Simplification of the terms of owner-occupancy loans should be effected (*a*) by the elimination of the down payment requirements, and (*b*) by adjustment of periodical instalments to the normal crop seasons of agricultural areas.

79 (4) Farmers, for the purpose of these clauses of the Housing Act, should be defined as agricultural operators deriving their principal living from the land (but should extend to those persons who habitually combine farming with fishing and/or logging in certain defined areas).

80 (5) The erection of cottages for farm labourers on the farmer's own land, and as units separate from his own dwelling, should be facilitated by means of low-cost loans made available in a special section of the Housing Act for this purpose. To ensure the separation of any obligations undertaken on this account from existing farm mortgages, if any, the nominal transfer of an appropriate area of land from the farm should be made a recognized procedure.

81 (6) A special adaptation of the low-rental housing provisions of the Housing Act should be devised to facilitate the setting up of inexpensive cottages for villages and small farm communities (including, where appropriate, their organization on a co-operative basis). If mortgage insurance is applied to these projects, the costs in such cases should be assumed by the Dominion government.

82 (7) With a view to promoting the building of community centres throughout the rural districts of Canada, special provision (including long-term amortization and low-cost financing) should be created either under the Municipal Improvements Assistance Act or the revised National Housing Act or both; these provisions to be applicable to co-operative as well as local government sponsorship.

83 (8) In the revision of home improvement provisions, a special section of the new Act should be devoted to farm improvement in order to give adequate definition to facilities intended to promote such programs in agricultural districts.

84 (9) (*a*) In the disposal of war equipment, salvaged or otherwise, at the time of demobilization, special priorities should be arranged to provide adequate opportunity for farmers to secure materials and equipment at low prices.

85 (*b*) Investigation should be made of the possibility of grants of specialized physical goods such as electrical, plumbing, heating, and refrigeration equipment, contributable either at a rebate, or in return for the labour of installation, in either house construction or repair and improvement projects.

86 (10) In all provisions made for the improvement of housing design, attention should be devoted to farm housing as a subject with its own special requirements and problems. The co-operation should be sought from departments of agriculture, as well as from architects familiar with or willing to study rural conditions; and means should be found of consulting the views of farmers and farm housewives on the subject.

(11) The provisions of the sections of the Housing Act relating to farm areas should be made applicable to fishing communities, and to areas in which fishing or lumbering operations are habitually combined with agriculture. 87

5. *Co-operative Associations.* (Chapter 8).

(1) The National Housing Act should be amended to include special sections under the terms relating both to home ownership and low-rental projects, including single and multiple dwellings, and accessory units, which will extend the available facilities to co-operative associations, whether for urban or rural application. 88

(2) Interpretative clauses should define a housing co-operative as meaning a group of persons associated for the co-operative building or ownership of homes, the definition to be in conformity with that set out in provincial legislation on Co-operative Associations where this exists, or stipulating the principles involved for areas where there is no such legislation. The by-laws and regulations of such housing co-operatives should be required to be satisfactory to the Minister in charge, but in other respects co-operatives may be placed on the same basis as Local Housing Authorities or limited-dividend corporations operating in the housing field. 89

6. *Company-Owned Houses in Industrial Areas.* (Chapter 8).

With the exception of one province, there is a complete absence of company housing regulations in Canada. Legislation controlling the character of houses provided by employing companies is desirable, particularly where there is little or no possibility of a supply of low-rental housing forthcoming from other sources. It is therefore recommended that company-owned housing be given special attention in the codification of provincial health and housing laws. 90

7. *Renovation and Improvement Programs.* (Chapter 8)

(1) The Home Improvement plan should be revised and liberalized, and placed on the statute books in readiness for use immediately at the end of the war. 91

(2) The effective rate of interest incorporated in provisional existing plans should be lowered, to be comparable with the rate which will prevail under home ownership plans. 92

(3) Consideration should be given to various methods of simplifying payment, including (a) the elimination of the discount feature, and (b) the computation of a blended payment in equal instalments. 93

(4) Special attention should be paid, at the time of demobilization and disposal of wartime stores, to the utilization of equipment and materials, whether new or salvaged, in renovation and improvement programs. 94

8. *Reduction of Housing Costs.* (Chapter 11)

(1) *Wages and Labour Costs.*

(*a*) At as early a date as possible and preferably after the broad lines of the national housing program have been drawn, discussions should be inaugurated with respresentatives of the building crafts on the subject of wage rates and employment regularity in the specific field of housing. Methods of securing economy in labour costs will elicit the co-operation of the building trades only if they are combined with policies directed at providing more stable employment through the reduction of seasonal slackness, unemployment between jobs, and the assurance of employment provided by a long-term housing program. 95

The same considerations apply to the elimination of restrictive practices (in apprenticeship regulations, craft demarcations, etc.) from trade union policy. 96

97 (*b*) The development of factory methods, including pre-fabrication and mass assembly should be related as far as possible to promoting the dovetailing of labour between construction and production seasons, i.e., special attention should be given to the operation of prefabrication units in the winter months, particularly in view of the likelihood of a large number of such units being required throughout the country.

98 (*c*) Provisions should be made wherever appropriate, more particularly in rural and farm areas, for utilizing the labour of the builder or purchaser, in lieu of part of the down payment.

(2) *Building Materials.*

99 (*a*) A review of the existing tariff schedules should be undertaken with a view to reducing tariffs which are a material influence on the costs of certain imported materials and equipment.

100 (*b*) The earliest opportunity should be taken to remove sales taxes on building materials and equipment.

101 (c) A special mandate should be given to the Commissioner under the Combines Investigation Act to investigate the conditions under which building materials and equipment are marketed in Canada.

102 (*d*) The system of multiple basing points for transport charges of building materials and equipment should be specially examined for the purpose of eliminating inequitable differences of cost which bear heavily on some regions.

(3) *Building Practice.*

103 (*a*) Government co-operation should be offered in any ways appropriate to the construction industry, the architectural and engineering professions and other interested groups, for the promotion and adoption of the principles of modular design and the standardization of building materials in the chief fields of housing construction, both urban and rural.

104 (*b*) Means should be explored, in consultation with the provincial governments, of accelerating the adoption of the Residential Section of the National Building Code which has been formulated by the National Research Council and the National Housing Administration. As an aid in this process, a simplified version should be completed, also explanatory literature prepared for distribution to local authorities and interested individuals and groups.

105 (*c*) Specific powers should be provided for the Housing Administration to undertake the necessary research and to construct and operate experimental projects for the demonstration of low-cost construction and equipment installation.

(4) *Organization within the Building Industry.*

106 (*a*) It is strongly urged that the various associations and representative bodies within the construction industry and allied professions should establish a bureau or other organization for the co-ordinated study of better housing design.

107 (*b*) Assistance from governmental sources should be extended wherever appropriate to professional associations of architects and engineers for the purpose of encouraging the study of (i) the design of community housing projects, low-rental housing, and farm housing; and (ii) the employment of new and economical materials in these fields of construction.

108 (*c*) It is desirable in the public interest that all general contractors and entrepreneurs in the sub-trades should in future be required to secure a licence (provincial or local) before engaging in house-building.

(5) *Scale of Housing Programs.*

109 The committee desires to emphasize the importance of large-scale planning and its effect on almost all aspects of building cost. A large public housing program should be utilized wherever possible as a means of effecting economies, and as a medium for suggesting improvement in building practice, housing design and project administration.

PART I.—EXPERIENCE

CHAPTER

1. Housing Legislation in Canada.
2. Housing Legislation in Britain.
3. Housing Legislation in the United States.

CHAPTER 1.

HOUSING LEGISLATION IN CANADA

The provision of housing accommodation in Canada, with only slight exception, was regarded as exclusively a private matter, up to the period of housing shortage which made itself apparent after the last war. Governmental functions, so far as they operated, were the prescription of the general laws covering real property, building and sanitary standards, and taxation.

The exceptions were the first Act in Canada designed to encourage the public provision of housing, passed by the Province of Ontario in 1913 and one or two abortive town planning acts. The Ontario legislation permitted municipal governments to guarantee up to 85 per cent of the bonds issued by housing companies; but the City of Toronto was the only municipality that used it and then only to a small extent. Houses to the number of 330 were built by the Toronto Housing Company, which is still in existence.

New interest grew in 1919 after housing shortage, as one of the elements of post-war unrest, was reported on by the Mathers Commission,[1] and proposals discussed at the National Industrial Conference called by the Dominion Government. In its report, the Royal Commission emphasized that, "Another cause of unrest which we met with at practically every place we visited was the scarcity of houses and the poor quality of some of those which did exist. In nothing has production more signally fallen off during the four years of war than in the building of dwelling houses. The existing condition for the worker is affected not only by the absence of sufficient housing accommodation, but also by the inadequacy of those that are in existence. Poor sanitary conditions and insufficient rooms are the chief complaints. The high price of building land and of building material have made it impossible for the worker to provide himself with a home, and some means should be adopted, with as little delay as possible, to remedy this defect."[2] The National Industrial Conference had previously asserted that current industrial unrest and unsatisfactory social conditions were, to a considerable degree, the consequence of "land speculation, poor and insufficient housing and high rents."

These reports made action on the part of the government a necessity. Subsequently, the Dominion Parliament authorized loans to the provincial governments under the provisions of the War Measures Act; the loans carried interest at 5 per cent and were made on a 25-year maturity. The provinces in turn allocated the funds to municipal governments. Practically the whole amount allotted, $25,000,000, was used in the course of four years and a total of 6,242 houses were built in 179 different municipalities. But with one or two exceptions, the "records showed mismangement of funds and inefficient administration of those projects by the municipal housing authorities."[3]

Experience in the operation of public housing, which was to be so greatly extended in European countries during the following decade, was virtually nil in Canada. In particular the device of a Housing Authority, a corporation as a separate management unit, was not generally employed. The houses were

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[1] Report of the Royal Commission on Industrial Relations (Mr. Justice Mathers, Chairman), Supplement to *Labour Gazette*, Ottawa, July, 1919.

[2] Mathers Commission Report, op. cit., p. 13.

[3] Dominion Bureau of Statistics, *Housing in Canada*, Census Monograph No. 8, p. 44, Ottawa, 1941.

built principally for ownership and not as low-rent properties. No more unfavourable period could have been chosen, because land values, building materials and other costs were still at the greatly inflated level induced by the war, and the subsequent decline of prices left the properties carrying excessive burdens of fixed charges.[1] Unfortunately, this bad start in public housing was not properly assessed in contemporary discussion on housing, and continued to exert an undue prejudice against public participation in housing for many years.

No further public interest in housing was taken until the depression years of the 'thirties, but during this period the subject was frequently discussed as a possible road to recovery. Many city organizations, welfare groups, and committees of citizens in Halifax, Montreal, Ottawa, Toronto, Winnipeg and elsewhere made surveys and reports on local conditions. In spite of these activities, no public action resulted until 1935. In that year, a special committee to study housing was set up by the House of Commons. The terms of reference were broad, for the Committee was charged "to consider and report upon the inauguration of a national policy of house building to include the construction, reconstruction and repair of urban and rural dwelling houses in order to provide such dwelling houses as may be necessary; upon such terms and conditions as may be best adapted to the needs and requirements of the people, having regard to the cost of such a policy and the burden to be imposed upon the treasury of Canada, and to recommend the manner in which such a work should be proceeded with."[2]

After hearing numerous witnesses the Committee made several recommendations favouring financial help for new housing and rehabilitation projects. In addition it reached a number of conclusions, seventeen in all, of which four are given here:—

> 3. A national emergency will soon develop unless the building of dwellings be greatly increased.
>
> 4. The formation, institution and pursuit of a policy of adequate housing should be accepted as a social responsibility.
>
> 5. There is no apparent prospect of the low-rental housing need being met through unaided private enterprise building for profit.
>
> 13. The slum areas which have been shown to cast very heavy expenses on many branches of public administration such as health, welfare, fire prevention, administration of justice, etc., may justify public assistance, which is likely to prove as sound financially as it is certainly desirable socially.[3]

The Dominion Housing Act

In response to these representations, the Dominion Parliament passed the first federal measure specifically devoted to assisting the building of houses. Under the Dominion Housing Act,[4] the Government agreed to advance 20 per cent of the value of land and contemplated building to an approved lending institution at 3 per cent interest. Municipalities or their agents might qualify as approved institutions, but in practice this meant largely insurance and trust companies. The lending institution was to function in the transaction by advancing 60 per cent, making a total loan of 80 per cent and leaving a 20 per cent

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[1] The average loan per housing unit amounted to approximately $4,000. Since prospective owners had to invest an equity of their own and since, furthermore, the actual costs paid were, in many cases, higher than those tendered, the cost of the individual home, including land, was in the neighbourhood of $5,000 per unit. This compares with an average loan per unit under the Dominion and National Housing Acts (1935-1943) of $3,305.

[2] *Journals of the House of Commons Canada*, No. 23, 1935. p. 135.

[3] Final Report of the Special Committee on Housing, 1935. p. 375.

[4] *Statutes of Canada*, 25-26 George V, 1935, Chap. 58.

equity. As first mortgages for most private institutions had been limited to 60 per cent of the value by trustee requirements, the effect of the Act was to increase the amount of the first mortgage and reduce substantially the amount of equity required by the builder. The interest rate to the borrower on the whole mortgage was 5 per cent and monthly payments paid the interest and amortized the principal in not more than 20 years. The further effect of the Act was to reduce the rate of mortgage interest in some areas and to make possible home ownership on a smaller equity. It also reduced the necessity for speculative builders to make such extensive use of the second mortgage at high interest rates. It had always been possible for speculative builders to operate on a small equity through the use of the second mortgage. But it was an expensive technique.

The use made of the 1935 Act turned out to be somewhat disappointing. By 1936 loans approaching $4,400,000 representing the building of only 934 units were made, though in 1937 this figure was doubled and again increased in 1938.[1] The lending companies expressed some criticism of the provisions of the Act, but it may well have been that the newness of the legislation and procedure was the main problem and that this was being gradually overcome.

A new step was taken in 1937 when home improvement loans were authorized under the Home Improvement Loans Guarantee Act.[2] This plan permitted individuals to borrow from banks or other institutions amounts up to $2,000 for periods ranging up to 5 years at a discount rate of $3\frac{1}{4}$ per cent per annum. Because of principal repayments this, in practice, meant an effective interest rate of around 6 per cent. No collateral or note endorsement was required and the government guaranteed losses to a maximum of 15 per cent of the aggregate amounts loaned. This plan proved an aid to the rehabilitation of private homes and also was utilized to effect the conversion of old houses to small apartments. A substantial sum—$50,000,000—was set aside for the operations under this Act; this was exhausted at the end of October, 1940, when as a war measure the Act was discontinued.

The National Housing Act

A recasting of Dominion legislation was effected in 1938, and the Dominion Housing Act was superseded in this year by the National Housing Act which was organized in three parts. The operation of the Act was placed under a National Housing Administration in the Department of Finance. Part I of the Act, relating primarily to home ownership, continued the loan procedure outlined above with some modifications. In addition it made possible 90 per cent loans on houses costing less than $2,500, and guaranteed loans of $4,000 or less in remoter areas, which had been in fact—though not in law—excluded under the first Act. In addition it appropriated $20,000,000 for loans under the 1935 and 1938 Acts. Over $19,000,000 of this appropriation had been allotted by 1941, and much current discussion centred around whether or not it should be continued. A further appropriation was finally provided, and the Act has been kept in operation, but on a reduced scale, owing to material limitations. The government allotment has provided total first mortgage loans of over $76,000,000—a very sizeable sum compared to preceding outlays—and the loss on this whole experience has been $722. From the end of 1939 on, the operation of the Act was limited to single-family dwellings with a maximum loan of $4,000.

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[1] Data include loans cancelled or withdrawn. For a summary of eight years operation, see O. J. Firestone, *The Labour Value of the Building Dollar*. Published by Housing Administration, Department of Finance, Ottawa. 1943.

[2] Actually, loans of this type were initiated in October, 1936.

Part I of the National Housing Act was used extensively from the beginning and the loans made under it showed a notable increase over those made under the 1935 Act. Some 3,100 loans were made under the Dominion Housing Act in its 34 months of operation, which contrasts with over 15,000 loans made under the National Housing Act in its first 44 months of operation. Also the size of the average loan under the 1938 Act has tended to decrease, indicating that it has been used more and more by borrowers of modest means. Over 50 per cent of the loans under the 1938 legislation were for less than $3,000, practically 75 per cent for less than $3,500, and over 93 per cent for $4,000 or less. Further, owing to the guarantees given by the government, lending institutions were prepared to go into remoter areas which previously had not provided acceptable risks. Thus the range of the Act was greatly extended for the 1935 Act was confined mainly to the cities.

In Part II of the National Housing Act, the first provision was made for "low-rental" projects. These could be undertaken either by a limited-dividend company which could borrow up to 80 per cent of the value of the project at $1\frac{3}{4}$ per cent, or by a municipal authority which could borrow up to 90 per cent at 2 per cent. An important condition attached to this section was that the municipality had to agree to limit taxation to one per cent of the value, in the case of a local housing authority, and to forego all taxes if the limited-dividend company could not otherwise maintain its payments to the government. In addition, it was necessary for the province to guarantee the principal and interest on all local authority or municipal borrowings under the Act.

As these last provisions required enabling legislation from the provinces, the Act could not be used unless the provinces concurred. Five provinces did pass enabling legislation but four, including Ontario, did not. Thus in practically half the country, Part II never came into force. But even in those provinces in which the Act could be used, little was accomplished under it. The difficulty in getting the organizations started, the problems of plan preparation and, most of all, the acquisition of sites, all combined to make progress slow. The advent of war killed the projects which were nearest to realization, and Part II expired in any case in 1940. Of the sum which had been appropriated for loans under this section—$30,000,000—not a dollar was used: its size would indicate that such a dearth of results was hardly anticipated.

Part III of the Act was a tax-compensation measure. Provided that a municipality provided building lots for $50, the Minister of Finance was empowered to pay the full general taxes for one year on any house costing not more than $4,000, to be followed by 50 per cent of the taxes during the next year and 25 per cent the third year. The clear intent was to encourage the small owner-occupier, who was the only one eligible for this tax concession. It was little used, and this Part also expired, in effect, on March 30, 1940.

A principal achievement of the Act was probably the reduction in the rate of interest on mortgage capital. The provisions obviously facilitated this, though it was in line with general reductions in interest rates which occurred during the period concerned. Reductions in interest on mortgage capital were not in fact uniform throughout the country, for in some large cities the rate was decreasing through market influences while in other areas it remained practically untouched. The effect of the Housing Acts was perhaps greatest outside the larger cities, where it provided a lever to pry down interest rates which were maintained through inertia, custom and lack of confidence in the real estate situation generally.

Housing Supply Prior to the War

If they were available, the facts of Canadian housing supply year by year over this period would provide the proper perspective against which to view the products of this legislation, and the housing situation generally as it existed

without benefit of legislation for a considerable part of the time. It is possible to assemble only estimates of actual housing units built, and supporting information measured in value terms, along with some of the data for the two countries, Great Britain and the United States, with which Canadian comparisons are most frequently made.

Something can be gleaned, first, from an estimate of the age-distribution of the principal urban housing supply of the country as a whole. Such an estimate is necessarily very tentative, and the reader is referred to the Appendix (Statistical Note B) for explanation of the means by which it is computed.

TABLE 1.—ESTIMATED AGE OF DWELLINGS IN URBAN CANADA (AS AT 1941)

Age in years	Dwellings	
	Number	Per cent
1–10	254,100	17·7
11–20	386,500	26·9
21–30	226,200	15·7
31–40	271,200	18·9
41–50	94,800	6·6
51–60	85,000	5·9
61–70	88,800	6·2
Over 70	30,200	2·1
Total	1,436,800	100·0

Source: Estimate by research staff, Advisory Committee on Reconstruction.

It indicates that after the first fruits of Canada's first housing legislation in 1919, private house building flourished in the 'twenties. But the early 'thirties brought a disastrous decline. This check to residential building activity during the last decade is revealed by the fact that there are only about 254,100 dwellings ten years old or less, as against 386,500 dwellings between 11 and 20 years old. In terms of building activity this means that for every three new dwellings built during the 'twenties, only two were built during the 'thirties. In terms of *new* residential construction, the contrast is still greater, since considerably more dwelling units were constructed by reconversion of old dwellings in the 'thirties than in the 'twenties. New dwellings constructed by reconversion or remodelling of old homes are included in the increase of dwellings shown by Census figures. Since the estimate of the age of dwellings relates to units and not to buildings, and is itself partly based on Census figures, reconversion and remodelling of existing buildings have an important bearing on the interpretation of the age distribution.

The general course of boom and depression in the 'twenties and 'thirties and the marked way in which construction followed these trends, is well known. It is of special interest, however, to single out an index of residential types of construction (Table 2) and to note the heavy fluctuations which this has undergone.

During the 'twenties, the volume of residential construction was the highest ever experienced in this country. Residential contracts awarded amounting to $47 millions in 1919, and were more than doubled in each of the three years following, a peak of $104 millions being reached in 1922. A small decline occurred in 1923-1925, to be followed by a considerable upward movement of residential construction activity. In 1928 an all-time high of $139 millions was reached. A perhaps subconscious anticipation of the coming crisis of 1929 brought a decline in the volume of residential contracts in this year to $129 millions. The 'thirties, by contrast, registered contracts of residential construction which, at the lowest point in 1933, amounted to but one-fifth of those

TABLE 2.—NATIONAL INCOME AND RESIDENTIAL CONSTRUCTION CONTRACTS AWARDED, 1919-1942

Year	National income	Residential construction contracts awarded	Residential construction contracts as percentage of national income	Indices (1935–1939=100)	
				National income	Residential construction contracts
	$(000,000)	$(000)			
1919	3,816	47,015	1·2	93·6	93·5
1920	4,598	54,891	1·2	112·7	112·7
1921	3,507	76,655	2·3	86·0	85·9
1922	3,671	104,202	2·8	90·0	89·9
1923	3,847	97,645	2·5	94·3	94·2
1924	3,865	91,225	2·4	94·8	94·7
1925	4,239	96,490	2·3	106·4	103·8
1926	4,507	109,562	2·4	110·5	110·4
1927	4,738	124,940	2·6	116·2	116·1
1928	5,269	139,166	2·6	129·2	129·1
1929	5,273	128,901	2·4	129·3	129·2
1930	4,452	93,292	2·1	109·2	109·1
1931	3,580	81,684	2·3	87·8	87·7
1932	2,813	28,893	1·0	69·0	68·9
1933	2,723	23,930	0·9	66·8	66·7
1934	3,147	30,588	1·0	77·2	77·1
1935	3,371	36,409	1·1	82·7	82·6
1936	3,827	42,858	1·1	93·8	93·8
1937	4,368	56,207	1·3	106·6	107·0
1938	4,281	55,026	1·3	105·0	105·1
1939	4,553	67,451	1·5	112·0	111·5
1940	5,404	67,670	1·2	131·9	132·4
1941	6,500	92,399	1·4	159·4	159·2
1942	7,500	79,280	1·1	183·9	183·7

Source: Revised national income estimates prepared by the Business Statistics Branch of the Dominion Bureau of Statistics, and published in the *Monthly Review of Business Statistics*, page 15, March 1944. Figures for 1941 and 1942 are preliminary. Residential construction contracts awarded taken from MacLean Building Reports, published by the Hugh C. MacLean Publications Limited.

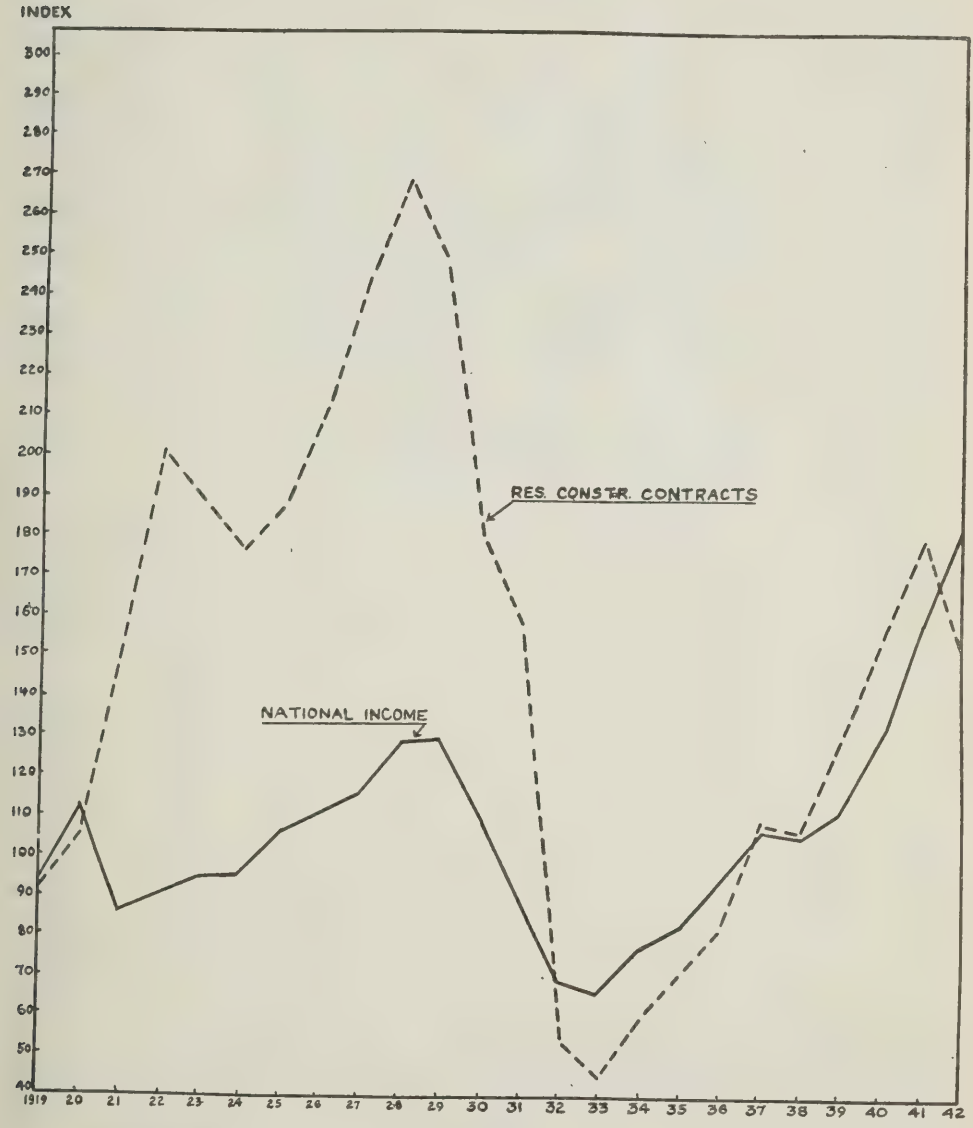
undertaken in 1928. From 1934 onwards, a slow and hesitant recovery of residential construction occurred, the figures of contracts awarded showing a continuous rise until 1941, when the rise was interrupted by the war.

To heighten the perspective, the figures of residential contracts awarded have been set next to the latest estimates of the national income. The rise in the volume of residential construction contracts and the increase of the national income in the 'twenties thus shown is clearly marked. It was followed, no less significantly, in the 'thirties, by a substantial contraction of residential construction activity and by a slower decline in the national income. The suggestion that there is a high correlation between the prosperity of the country expressed in terms of its national income and residential building activity is borne out by Figure 1. Even if contracts awarded represented, in 1928, only 2·6 per cent of the national income, the stimulus exerted by that expenditure, in addition to outlays for other types of construction, is definitely linked with the ensuing prosperity.[1] Speaking in terms of a post-war program, it must not be forgotten that a substantial volume of residential construction will not only provide the country with badly needed housing accommodation, but it will also serve as an important factor in employment stabilization. Even more revealing is the

[1] In this connection, it should be remembered that figures of contracts awarded understate the total volume of residential construction in that houses constructed by their owners, and a substantial proportion of repair and alteration construction not carried out by contractors are excluded. Even if it is assumed that the total volume of residential construction was 50 per cent higher than indicated by these figures, this implies, for the peak year, a proportion of only about 4 per cent of the national income. But the stimulating effect upon the national economy is greater than is to be judged from the percentage alone.

FIGURE 1

TRENDS OF NATIONAL INCOME AND RESIDENTIAL CONSTRUCTION CONTRACTS AWARDED, 1919-1942



This chart shows indices of national income (Dominion Bureau of Statistics estimates) and residential contracts awarded (MacLean Building Reports), Canada, 1919-1942. Base of index: 1935-1939=100.

course of construction activity in terms of actual housing unitse built. Since figures on this important matter have never been available in Canada until recently, it has been necessary to fill the gap by means of estimates for the years 1922-1939.[1] A combination of estimates and recorded figures for the United States, and of the official compilations for England and Wales for the same period, are listed along with them in Table 3.

In broad terms, they show that net additions to the housing supply in the first decade after the last war rose from 32,000 to 50,000, averaging about 39,000; during the worst of the depression years, the figure fell to as low as 14,000, rising only to 32,000 (the same figure as in 1922) by 1939. The significance of these estimates is that throughout the period, in the good years and bad, the number of new dwellings required annually should have been considerably higher, if any allowance at all is made for inadequacies of accommodation due to overcrowding, or the inability of low-income groups to secure satisfactory housing, or both.

There is another angle of importance. Most commentators who have reviewed the first experiment of assisted housing in the early twenties devote their attention to the administrative inadequacies. Far less thought has been given to the fact that the dimensions of this housing experiment undertaken by the Dominion, provincial and municipal authorities were so small as to make it of slight significance for the purpose of economic stabilization. Even an ideal administration of the loan funds could have accomplished little in the face of the serious slump which followed the reconversion boom of 1920. During the

TABLE 3.—RESIDENTIAL CONSTRUCTION IN CANADA, ENGLAND AND WALES, AND THE UNITED STATES, 1921-1939

Year	Number of dwelling units built		
	Canada	England and Wales	United States
	(000)	(000)	(000)
1921	—	39	449
1922	32·2	111	716
1923	35·6	92	871
1924	33·8	86	893
1925	34·9	137	937
1926	39·2	173	849
1927	45·0	218	810
1928	50·2	239	753
1929	48·5	170	506
1930	39·0	202	330
1931	38·0	184	254
1932	26·1	201	134
1933	14·4	200	93
1934	15·8	267	126
1935	19·2	329	309
1936	22·2	325	347
1937	26·5	346	403
1938	28·5	338	466
1939	32·2	—	587

Source: (*a*) Data for Canada relate to urban areas only. The estimates (by research staff, Advisory Committee on Reconstruction) are based on the net increase of dwellings, as reported in Censuses of the Dominion Bureau of Statistics, and on an allowance for destroyed and demolished dwellings. For method of computation see Statistical Note A in Appendix. On the importance of the distinction between *net increase* and *annual units built*, see Statistical Note B in Appendix. (*b*) Data for England and Wales published annually by the British Ministry of Health; total includes assisted and unassisted building. Compilation reproduced from H. W. Robinson, *The Economics of Building*, Table IX, page 119. London. 1939. (*c*) Data for the United States are estimates of all units built, assisted or otherwise, excluding farm areas. Compilation reproduced from *Toward More Housing*, Monograph 8, p. 23, Temporary National Economic Committee, Washington. 1941. For the period 1929-1939, revised figures by courtesy of United States Bureau of Labor Statistics. All figures rounded to the nearest thousand.

[1] In view of the importance of these and related figures, they are described in a special note in the Appendix (Statistical Note A).

period 1921-1930, it is estimated that a total of about 387,000 new units were constructed in Canadian cities and towns. In other words, about 1,600 units were constructed annually under the public housing experiment, as compared with an annual total averaging 38,700 new housing units. This means that publicly assisted housing contributed hardly 5 per cent of the total. In the years after 1935 when the new assisted housing legislation began to take effect, the proportion of assisted housing to total residential construction rose to as much as half, but the total volume was still at a depression level.[1]

Comparative Program

Lessons for Canada's post-war housing policy can be learned from a comparison of the number of new housing units constructed in Great Britain, the United States and Canada during the period between the two wars. Although the statistics and estimates available are not strictly comparable, they suffice to give a clear indication of the extent to which the success of the British in coping with the depression of the 'thirties was due to an active housing policy. The British program, indeed, is of such dimensions that the efforts of the United States and Canada seem slight by contrast.

In England and Wales, the volume of residential construction of 39,000 housing units in 1921 increased six-fold or to 239,000 units, in 1928. In urban Canada, the annual building of 32,000 units in 1922 was stepped up to only about 50,000 units built in 1928. In the United States (non-farm areas), there were 449,000 units built during 1921, this number increasing to 937,000 units in 1925 and declining to 753,000 in 1928 (see Table 3). But what is more impressive than the volume of building activity during the prosperous 'twenties, is the influence of British policy on the volume of house building during the depression of the 'thirties. While at the beginning of the 'thirties, residential construction was drastically curtailed in the United States and Canada more houses were built in England and Wales than ever before. In 1934, about 267,000 housing units were built in England and Wales, or about 28,000 more than were built during the peak year of the 'twenties. Since 1934, the volume of residential construction in that country has increased steadily, only to be interrupted with the outbreak of the war in 1939. These figures, more than any theoretical arguments, point to the importance of residential constructon as an employment stabilizer and emphasize the contribution made by British housing policy, particularly during the decade preceding the present war.

Though the volume of residential contracts awarded understates somewhat the total volume of residential construction, the fact remains that there is a great discrepancy between the relative significance of residential construction carried out in Canada and in the United States. If, as before, an upward adjustment of 50 per cent is allowed to contracts awarded and it is assumed that residential construction made up about 4 per cent of the national income in 1928, this is still considerably below what was spent in the United States in the peak year of residential construction in 1925. In this year, residential construction amounted to $5.4 billions, or about 7 per cent of the national income. In terms of per capita expenditure, this means that in the peak year of house building some $45 per person was spent in the United States as compared with about $22 for Canada; or put in another way, for every $2 spent in the United States, only $1 was spent in Canada.[2] Clearly, it will require a considerable effort to raise Canadian housing supply to the degree now being achieved in the United States, and yet more in Great Britain.

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[1] From 18·0 per cent in 1935 to 51·6 per cent in 1939. The estimated total expenditure on new residential construction in 1939 was considerably less than half the amount spent on residential construction for 1926-1929. (For more detail, see O. J. Firestone, *The Labour Value of the Building Dollar*, pp. 24-26; and *The Construction Industry in Relation to Post-war Economic Policy*, special study for the Committee on Reconstruction, Preliminary Report I, Chapter III.)

[2] Although average construction cost per housing unit is somewhat lower in Canada than in the United States, the over-all picture of residential construction on a per capita basis is not altered to any appreciable extent if calculated on a unit basis. Thus, for example, in the peak year of residential construction in the United States, about eight housing units per thousand population were constructed, against five per thousand population in Canada.

These figures prove beyond doubt that Canada has spent, in proportion, considerably less on residential construction than Great Britain and the United States. The belief that the comparatively large volume of house building in the 'twenties—which has been called by some a housing boom—brought about satisfactory housing conditions and provided homes for nearly everybody in this country, has no basis in fact. The number of dwelling units built during the 'twenties did not even approximate the requirements for a good standard of housing accommodation for Canadian cities and towns, and rural building probably lagged even more. Slum districts and blighted areas, including scores of dilapidated and insanitary building, were most clearly established in Canada towards the end of the 'twenties. New houses were being erected all the time, it is true, but most frequently in districts as far away as possible from the blighted areas.

Standards: National Indications and Local Surveys

It is generally recognized that the housing situation markedly deteriorated in the years following 1931, though no consistent and continuous measurements are available. Measurement of the outstanding features of the total situation based on 1941 data is attempted in Chapter 4 and elsewhere, but it is important to emphasize that the housing situation is the reverse of static. If it is not being improved, it deteriorates—because of the growth of population (i.e., the increasing demand for accommodation) alone, if not for other reasons.

When the Dominion census was taken in June 1931, considerable statistical information was brought to light which showed the lack of adequate housing for a substantial proportion of the population in the major cities. One-quarter of the population had dwelling space of less than 0·78 rooms per person in Montreal, less than 0·82 in Winnipeg, and less than one in Toronto. Taking one room per person (kitchen being defined as a room) as a standard, over 40 per cent of the population of Montreal lived in overcrowded conditions, the proportion for Winnipeg being 36 per cent and for Toronto being 24 per cent. In four other major cities, overcrowding was even more pronounced than in Montreal, while the percentages of overcrowding in the majority of the remaining large cities varied between those in Toronto and Montreal. Only in 5 out of 20 cities was the proportion of overcrowding below 25 per cent.

Although in 1931 the down-swing of the business cycle was more than two years away from its lowest point, doubling-up of families was considerable. In urban Canada, there were over 78,000 households, which included two or more families, with some extreme cases of seven families in a household. Altogether there were about 163,000 families not separately housed, representing about 800,000 people or 15 per cent of the total urban population. These, and other figures which could be cited, prove that the building activity of the 'twenties did not provide housing of types, quantity, and geographical distribution sufficient to assure every family in the country accommodation of a desirable standard.

More attention has frequently been given to local reports on housing conditions than to national measurements of housing requirements. Enquiries were undertaken by an increasing number of cities during the 'thirties, as the deterioration in housing supply and shortages of housing accommodation, especially for families with low incomes, became more marked. A few of the more indicative sections have been brought together in Appendix A; a closer examination of them would be necessary to give realistic detail to the pre-war picture.

Although these city reports employed different criteria, they all point to the same conclusion: housing acommodation in the major cities was extremely unsatisfactory, in the sense of overcrowding, and of physical standards and living amenities, slum areas were growing, and there existed a housing shortage, particularly serious for families in the low-income group. The Special Parliamen-

tary Committee appointed by the Dominion Government in 1935 reported thus on some of the aspects of Canadian housing supply and on the need for a strong and well-defined housing policy:

"A national emergency will soon develop unless the building of dwellings be greatly increased. . . The formation, institution and pursuit of a policy of adequate housing should be accepted as a social responsibility. . . There is no apparent prospect of the low-rental housing need being met through unaided private enterprise building for profit . . .The slum areas 'which have been shown to cast very heavy expenses on many branches of public administration such as health, welfare, fire prevention, administration of justice, etc., may justify public assistance, which is likely to prove as sound financially as it is certainly desirable socially.' "[1]

Two more years passed before a new National Housing Act was placed on the Dominion Statute Book. This legislation, which provided specifically for rental housing for low-income groups as well as assisted terms for purchasers of homes, is reviewed elsewhere. But the low-rental section (Parts II and III) were never brought into operation in any city. With very few exceptions, therefore, the conclusions reached by the Parliamentary Committee are as valid for rental housing in 1943 as they were in 1935, the situation having become actually worse in most cities than it was ten years ago. The slow and hesitant recovery of residential construction in the four years before the commencement of the present war did not raise the housing standard to any considerable degree, though it began to ease temporarily some of the pressure on the housing market.

Wartime Housing Provision in Canada

Wartime needs grew, and in 1941 brought about an interesting departure from previous practice, when the Dominion Government first entered the field of direct supply of housing. For this undertaking it established a Crown Company, Wartime Housing Limited, managed by a board of directors responsible to the Minister of Munitions and Supply. The Company was incorporated for the purpose of building houses for workers in those parts of Canada where war industries had created a serious housing shortage. In most cases the shortage had reached a point where the production of war industries would be seriously interfered with unless additional housing accommodation was supplied, though in a few cases houses have been allotted to other than war workers.

The function of the Company was to supply such temporary housing—including dormitories, staff houses, etc., as well as dwelling units—which could not be supplied by private capital. In some cases where the war plant is in a rural area and in a few urban centres, the arrangements are made almost entirely for the workers of a particular company. Although it was primarily intended to build temporary dwellings, the Company, in some cases, constructed permanent houses. In practically every place where a serious housing shortage was claimed, Wartime Housing made investigations to determine the validity of the claim. Efforts were also made to determine the most suitable type of house to build and one that could be uniform across Canada. The aim was to produce a house sufficiently attractive to satisfy the occupier and to provide good living facilities at the lowest possible cost.

In each municipality in which wartime houses have been built the usual procedure has been to set up a local advisory committee to assist in regard to the choice of site, the erection of the buildings and the management of the buildings after they are completed. These local committees act as a small board of directors and employ a manager and necessary office staff. Towards the end of 1943 there were 67 such committees engaged in managing these properties, and the total number of people housed was somewhat under 90,000.

[1] *Housing*, report by the Special Parliamentary Committee on Housing, Ottawa. 1935.

Studies were made in the early days of the Company to determine the rents which should be charged for the types of houses adopted as standard. But the view was taken that it was of practical importance that the rents charged should be in line with prevailing rents for such accommodation. The enquiries made to establish the rentals therefore studied the rental markets rather than incomes or budgetary needs. The Company was in the fortunate position of not coming under the rental control regulations. (Details on costs, expenditures and related factors are referred to in Appendix D.)

For temporary houses, Wartime Housing units are reasonably sturdily built and well planned. It was considered necessary, however, to design them so as to involve as small an investment on the part of the Government as possible, and they were built without basements and are heated with stoves. It is true that basements could be constructed under them, furnaces and other additions installed by tenants who wished to acquire them, but this is on several grounds a question for the future, for declared policy so far anticipates their eventual dismantling.

Attention was given by the Company to two outward aspects of its housing. It has landscaped the surroundings and provided lawns, shrubs and trees. It has also set up a Department of Tenant-Relations which has promoted community and recreational interests among the tenants on a considerable scale, and this feature has proved very popular in some sections.

There is a good deal of experience in the operation of Wartime Housing enterprises which it will be revelant and valuable to consider in relation to post-war programs. One aspect of this concerns structural and group-assembly economics, though assessment of unit costs will not be valid unless account is taken of restricted standards of the houses and the special circumstances of location, etc. under which they were built. Another is the determination of the proper tax base on which such properties should rest, particulary so far as the municipal governments are concerned. And a related and important question is the respective roles of federal, provincial and municipal governments in empowering location and administration, etc. Wartime Housing units, of course, were built directly under the aegis of Dominion statutory authority, though under negotiation with local governments. If a revised arrangement were accepted as desirable for other types of housing in the post-war period, not least among the provisos necessary would be the liability of the project to provincial and municipal town planning regulations. No appraisal of these various issues is attempted here, but it may be useful to conclude with a reference to some of the expedients adopted in matters of land acquisition and the setting of municipal taxes.

In some of the projects where there were municipally-owned lots available with all the municipal services, such as streets, sewers, water and sidewalks, Wartime Housing was able to obtain the use of the land for the duration of the war and 6 months thereafter, for a nominal fee of $1.00. Where improved land was not available, and acreage had to be taken, it was necessary for the Crown Company to instal all its own services because, in view of the temporary character of the houses, the municipality could not be expected to furnish out of its funds the services required. A great deal of the housing was built on such property. Because of the money that was spent on underground facilities, it was necessary that the Government own this land, and it is assumed that at the termination of the use of this housing these properties will be sold as improved lots and a substantial portion of their cost thus returned to the Government.

The setting of municipal tax rates produced unusual features in view of the tax exemption privileges of Crown properties. Section 125 of the British North America Act provides that no lands or property belonging to the Crown in the right of the Dominion or of any of the provinces shall be liable to local taxation. Accordingly the provincial statutes which make real property generally subject to municipal taxation provide exemptions for the interest to the Crown

in any such property. But the Assessment Act of Ontario (and similar provisions in the statutes of the other provinces) provides that, "the tenant of any land owned by the Crown (except a tenant occupying the same in an official capacity under the Crown) and the owner of the land shall be assessed in respect of the land as if the land was owned or the interest of the Crown in the land was held by any other person." "Land" is defined to include any buildings on the land; and provisions of this kind have been held by the courts to be within the power of provincial legislatures. This provision of the Assessment Act made it necessary for Wartime Housing Limited to negotiate agreements with the provinces and it is very doubtful if the War Measures Act could be used in this respect.[1]

Wartime Housing originally approached the provinces, particularly the Province of Quebec, with a proposal to pay in lieu of taxes the annual sum of $24 for the smaller house and $30 for the larger house. This arrangement was accepted in certain other provinces but not in Ontario. Generally speaking, these amounts would be less than the taxes which would be normally levied on these properties, although in view of the difference in the tax structures this would vary from province to province.

The nominal lump-sum arrangement proved, in Ontario at least, a source of dissatisfaction and controversy. The provincial government passed legislation to permit municipalities to grant fixed assessments to the properties of Wartime Housing, but this did not meet the Company's desires. It then endeavoured to negotiate agreements with the individual municipalities concerned and in some cases agreements were signed. But these agreements were of no validity because they exceeded the powers of the municipality. In general the experience indicated clearly the fundamental importance of a systematic arrangement with the provincial authorities in any housing plan. It may be noted also that the policy of not paying the regular taxes is in contrast with the principle now followed by the United States Defence Housing, which pays the full amount at prevailing rates to the local government. The necessity of integrating new rental-housing projects equitably with the municipal taxation structure is unquestionably of importance for post-war housing, whether of short-term or long-term character.

Rent Control

Another wartime development without previous parallel was the fixing and regulation of rental levels. Both the possibility and the powers of rent control were implicit in the functions of the Wartime Prices and Trade Board when it was set up under the War Measures Act in September 1939. The Board was given control over the price and supply of "any necessary of life". It was a comparatively small body at the outset, however, and also confined its surveyance to such commodities as demanded immediate attention. Complaints of high rentals began to be brought to the Board in the course of its operations during 1940, and a preliminary canvass of the situation was undertaken. It was not certain whether the authority of the Board to deal with rentals was clear, and on September 11, 1940, an Order-in-Council was passed specifically including housing accommodation under the definition of "necessary of life". Shortly afterwards, another Order specified the powers to fix rentals, define the conditions of leases, to make regulations governing the housing market in areas to be designated, and to appoint administrators. The first Rentals Administrator was Mr. Justice

[1] The situation is presumably that if no agreement is obtained with the province the tenants of Wartime houses would be assessable directly. It may be added that Section 113 of the Ontario Assessment Act was recently amended to allow the municipality to collect taxes from a tenant of the Crown by levying on the employer and "... such employer shall pay over to the treasurer or collector on demand out of any wages, salary or other remuneration due to such employee the amount then payable for taxes".

Martin of the Supreme Court of Saskatchewan. A series of local committees were set up in the controlled areas, primarily with the purpose of investigating and adjudicating upon local complaints and applications relating to rentals and housing accommodation. The Board also issued orders which began to set the general principles applied in administration. Some of them were intended for the guidance of the courts, defining housing accommodation, landlord, rental, etc. Others were for the guidance of the local committees, and landlords and tenants with respect to the establishment of maximum rent.

At first thirty areas in all were specified, the greater number in Nova Scotia and Ontario. The rental maximum was set at the level in effect at the beginning of 1940; or if there were no tenancy at that time, the rental charged in 1939, leaving the Rentals Administrator power to set the rate in special cases. Usually, hearings were conducted prior to the setting of rents. It soon became necessary to state conditions under which evictions could be permitted.

As the extension of war industry continued, increasing the number of centres in which an enlarged working population competed for limited housing supply, other centres were added to the list of controlled areas. In October 1941, however, the policy of the general price ceiling became effective. It was specifically applied to rentals on November 21, 1941; and at that time the maximum rental for any real property was set at the level in effect on October 11, 1941, or if there was no lease at that time, the latest rental charged since the beginning of 1940, leaving as before special cases to be dealt with by Board order. In some ways this extension was facilitated by the fact that regulations have now been developed in considerable detail. They cover, for example, the conditions under which a landlord can evict a tenant.[1] An Order of February 1941, elaborated specifically the conditions to be regarded as "special circumstances"; and also the methods by which maximum rentals can be varied. These and other details of the principal orders are described in the Appendix.

In July 1943 a considerable codification was undertaken, with the new provisions becoming effective as from October 1943. The first part of the codification dealt with maximum rentals of all kinds, including the conditions under which either a landlord or a tenant may apply for a change in the existing rent. The tenant was able to apply for a lower rent under two sets of conditions, if the rent concerned was higher than that prevailing generally in the neighbourhood for similar accommodation on the base date (October 11, 1941), or if there was a lessening of the quality of accommodation or service since the maximum rental was fixed. The second part set out the conditions under which the landlord could recover possession of the accommodation in accordance with the provincial laws. (See Appendix C.). Significantly, a third section brought together special regulations for shared accommodation.

It is clear that the institution of rental control made necessary the supersession of the provincial law governing landlord and tenant. In effect, new laws of real property were established by the administrators, or by the Wartime Prices and Trade Board so far as it codified their regulations. As experience

[1] These were as follows (they had to be proved in court if necessary):—
1. The tenant has not paid the rental or broken the conditions of the lease.
2. The tenant constitutes a nuisance or uses the premises for immoral purposes.
3. The tenant is not taking reasonable care of the premises.
4. The tenant had notified the landlord that he is going to vacate.
5. The landlord requires the premises for himself or his family.
6. The landlord has made major alterations in the premises and is authorized to charge a rental which the tenant will not pay.
7. The landlord has converted the premises into more units and the tenant is unable to pay the authorized rental for a unit.
8. The owner has turned the premises into business uses.
9. The owner has sold the house with the condition of vacancy involved.
10. The tenant is using the accommodation for other purposes than housing accommodation.

Details of other collations of working procedure are reproduced in Appendix C.

was gained, it was necessary to guard against forms of evasion, and new rules governing landlord-tenant relationships had to be drawn up. The steady growth in the extent and detail of the orders is clear evidence that the fixing of maximum rentals means little unless the general conditions of leases are also controlled. It was at least partly because of this that a change took place in the composition of the local committees. Local committees were first made up of three members; but the task of interpretation of regulations and precedents became a more and more legal one, so that the legal member of the Board became its mainstay. Later a number of the committees were reduced to one member, commonly the county judge or the member most familiar with the legal or real estate technique.

Although rental control was at first mainly concerned with existing housing accommodation, it also extended to new construction. In the controlled areas, cases were naturally brought to the committees relating to houses recently built there. Where landlord and tenant made agreements which were acceptable to both, the matter presumably did not come within the cognizance of the local Board, but confirmation of rental agreements was frequently sought. The principles followed in these cases do not appear to have been specifically set forth, but the idea of a fair and reasonable return to landlord appears to have been implied. After the application of the general ceiling, and with the development of the decisions rendered in disputes, new properties built for rental came fairly generally within the ambit of the administration.

It is difficult to assess the net effects of rent control, in view of the abnormal conditions of housing supply which have continued in the most important urban centres. Undoubtedly, the controls have kept down rentals which might have risen to crisis-levels in some areas if the fixed supply had been left open to the bids of increasing waves of tenants. On the other hand, they have of necessity probably aided, and certainly acquiesced in, the lowering of accommodation standards. On the average rents are higher than they were just prior to the war, because a period of uncontrolled markets prevailed for the first year or so of the war. The rise is comparatively small—less than 8 per cent, according to the cost of living index averaged for all cities—but practically all of this occurred prior to the basic period.[1] How much standardization has been brought about would be impossible to say without special enquiry; although the general conditions and principles of decision (on determining maxima, nature of leases, rights of eviction, etc.) have been codified, much leeway has been left for local assessment of the actual rents in particular areas. It would be necessary also to allow for the different degrees of violation of the orders, which have naturally varied according to the intensity of local shortage, and this in turn has depended upon the inadequacy of supply which prevailed before the war.

The effect on housing supply has also been complicated. In the earlier period, at least, current additions to housing accommodation were reduced inasmuch as higher rentals would have encouraged more individuals to invest in building for rental and driven some possible buyers to build for themselves. But by about the end of 1942 limitations on the availability of materials and labour would have reduced building in any case.

Rent fixation by itself, of course, is not an answer to the housing problem. The rent control administration has co-operated wherever possible in measures taken to extend the use of existing accommodation; but its fundamental purpose is to create a sense of equity, and provide protection against possibilities of exploitation. Control of the price of accommodation (rents) has not been

[1] Changes in some localities have been much greater than this average. Another factor which must always be allowed for in the rental situation, particularly in slum properties and housing accommodation for the lower income groups, is the prevalence of conventional rates which may persist even in the face of considerable change in general economic conditions.

accompanied by rationing, or by regulation of existing supplies, as has been the case for most other consumer-goods controls; and such a step is most unlikely. As a long-run measure, taken by itself, it would have even less to commend it. As one authoritative writer has put it, "Rent control alone has been used extensively since 1914. It has had very undesirable effects. While it prevents owners from taking undue advantage of the tenant, it freezes the existing situation and prevents adjustments to changes in housing needs. It offers no inducement to tenants who do not need all the space which they occupy to vacate part of it. Rent control without a rationing system that reduces the housing accommodation of all families to reasonable standard requirements is, therefore, apt to do the defence worker more harm than good."[1] The proper answer is more supply—increased building—an answer made impossible by exigencies of war production, but of obvious relevance in the postwar period.

Since provincial law normally governs property relationships, there are strong grounds for associating the provinces with whatever steps are taken to adapt or eliminate rent control for postwar purposes. Selective adjustment rather than immediate cancellation is likely to recommend itself. Although some areas will see a loss of population as soon as the war ends, or even as soon as the end is in sight, others will not be affected immediately. Thus a sudden release of rental control might be followed by a general attempt to raise rentals at once and probably intemperately. While it is to be hoped that house building will be resumed promptly and on a large scale, it is doubtful if the supply of housing can be increased sufficiently rapidly to meet estimated requirements. It will be necessary to consider carefully the factors involved, and particularly the sections of rental housing in which an increase of supply is necessary. The need for local surveys of housing conditions is referred to at various points in this report. It would be helpful if such surveys could endeavour to ascertain the extent to which rental levels applying to the lowest income classes of tenants have changed. It will be necessary also to take account of probable movements in the industrial working population (and other special groups, including the armed forces, as in Halifax), which may ease the situation rapidly in some centres, but comparatively little in others. How far the maintenance of rent control would be prejudicial to an extension of building by intending owner-occupiers depends very much on the costs of such houses, and this important technical factor must not be neglected. In any case it seems clear that the lifting of controls, whether on a selective or on a general basis, should be co-ordinated with plans for augmenting the housing supply, especially for public low-rental projects.

[1] Wright, C. M., "Housing Policy in Wartime and Reconstruction", *International Labour Review*, Vol. XLV, No. 3, p. 255. 1942.

CHAPTER 2

HOUSING LEGISLATION IN BRITAIN[1]

The literature of housing policy in Great Britain reveals two facts equally clearly: Britain has been a pioneer in housing legislation, but there is general recognition that much still requires to be done. The first British housing legislation was passed in 1851, and this was preceded by the famous Chadwick Report of 1838 which called dramatic attention to the unsanitary conditions under which the industrial working classes were living, and set some of the principles of public health legislation. There were various pioneer rehousing efforts, including those of Octavia Hill, before the war of 1914-18. But slum clearance and house-building on a large and nationally directed scale really dates from 1919.

Without underestimating the admittedly great progress which has been made, the magnitude of the problem must not be ignored. In a review published in November, 1935, by which time between two and a half and three million new houses had been constructed since 1919, the National Housing and Town Planning Council stated: "Notwithstanding the construction of this large number of houses, there is still a serious shortage in many parts of the country of modern dwellings which can be let at rents within the means of the lower paid wage earners." And an estimate based on a survey of the housing situation, published in *The Economist* in 1934, showed that in England and Wales in 1931

TABLE 4.—ESTIMATED HOUSING REQUIREMENTS FOR GREAT BRITAIN
1931-1951

	Number of houses	
	Lower estimate	Upper estimate
Shortage of houses:		
Excess of "natural units" over census families	220,000	220,000
Overcrowding	200,000	800,000
Prospective increase in number of families	714,000	714,000
Obsolescence	1,880,000	3,760,000
Slum clearance	300,000	1,000,000
Total, England and Wales	3,414,000	6,594,000
Add 10 per cent for Scotland	341,000	659,000
Total—Great Britain	3,755,000	7,253,000

Source: *The Economist*, London, March 31, 1934, p. 687.

there were 2,640,000 persons living at a density of more than 2 persons per room. The estimated number of dwellings required to be built during the two decades between 1931 and 1951, in order to house the population properly (in England, Scotland and Wales) was placed at 3,755,000 as a minimum, and nearly twice this number as a maximum. The estimates of minimum requirements, it was considered, "would solve only the worst of the overcrowding evils and lack of sanitation," while the upper estimate was regarded as a reasonable calculation of requirements.

[1] It was found possible to give an adequate summary of British legislation in the period prior to the war by making use of an article in *The Annals* (American Academy of Political and Social Science) for March, 1937, pp. 191-204. This article was prepared by N. H. Engle, of the Bureau of Foreign and Domestic Commerce, based on material collected by O. S. Watson, U.S. Trade Commissioner in London. For the first part of Chapter 2, extensive adaptations of the text of this article have been made, and it is desired to render acknowledgment herewith.

British housing during the inter-war period has been facing two related but distinct phases of rehousing. These are slum clearance and the reduction of overcrowding. A five-year slum clearance program, initiated under the Housing Act of 1930, which provided government subsidy, was planned for completion by 1938. The reduction of overcrowding has been progressing under the authority of the Housing Act of 1935. The Minister of Health in an address in 1936 stated:

". . . the original program aimed at the removal of about 1,300,000 people from unfit houses and the provision of new accommodation for the same number of people. So far the erection of new houses has been approved for about 900,000 people, about 500,000 of these are already in the new houses and about 250,000 are waiting for the completion of houses already commenced. Since the original programs were submitted additions have been made which will add another 300,000 to the list of those for whom decent homes have to be found. As you will have noted good progress is being made and we shall be disappointed if the end of March 1938 does not find nearly a million persons rehoused out of the slums."[1]

To facilitate the overcrowding reduction program a very extensive survey was made of some nine million dwellings. On the average 3·8 per cent of these "were found to be overcrowded according to standards" of the Housing Act, although there was wide variation from place to place. Sir Kingsley Wood pointed out that overcrowding abatement, despite the 1935 Act, takes second place to slum clearance in British housing activity. He stated:

"In some areas the completion of the slum clearance program will keep the local authority busy for some time to come. Where this is so, this work will generally have priority over other housing activities . . . This does not mean, however, that they are meanwhile precluded from taking effective steps to abate overcrowding. Quite the contrary. No matter under what Act a local authority is proceeding, when they are erecting new houses they will have in mind the general needs of their district."

In view of the importance of local surveys for the efficient guidance of housing developments, the statement of the Minister on this subject is worth quoting:

"The information in their possession, as a result of the recent overcrowding survey, will be of the greatest assistance to them in making their plans for the future accommodation to be provided. That survey gives each local authority information as to the number and sizes of the working-class families in their districts and also as to the number and sizes of the working-class dwellings in their districts and, therefore, enables them to see at once if they have a shortage of any required type of dwelling or a surplus of any other type. Accordingly, when they are displacing families by slum clearance operations the size of the replacement houses will not be determined merely by reference to the size of the families displaced. Some of the replacement houses will be made big enough to take overcrowded families, while other accommodation, for example, an existing Council house, may be used to accommodate the families displaced by slum clearance. It is probable that in this way the operations of slum clearance will serve to abate many cases of overcrowding."

A table prepared in a recent article, and reproduced below, provides an excellent summary of the legislation which has been put into effect during the years between the wars, and also of the volume of housing built under forms of public assistance. The latter may be compared with the estimates of total additions to housing supply given in the preceding chapter.

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[1] Right Honourable Sir Kingsley Wood, M.P., Minister of Health, in an address before the National Housing and Town Planning Conference program, Harrogate, November 27, 1936.

TABLE 5.—HOUSING UNITS BUILT WITH PUBLIC ASSISTANCE BY LOCAL AUTHORITIES AND PRIVATE AGENCIES, ENGLAND AND WALES, 1919-1938

Housing Act	Local authorities	Private agencies	Total (including houses built in rural areas)
Housing and Town Planning Act, 1919	170,090	4,545	174,635
Housing (Additional Powers) Act, 1919	.....	39,186	39,186
Housing Act, 1923	75,309	362,738	438,047
Housing (Financial Provisions) Act, 1924—			
(a) In agricultural parishes	29,444	2,062	31,506
(b) In other parishes	475,074	13,718	488,792
Slum Clearance Acts, 1930 and 1936	225,453	5,753	231,206
Abatement of Overcrowding under Acts of 1935 and 1936	14,953	225	15,178
General Housing needs under Acts of 1925 and 1936 (1)	67,182	.....	67,182
Total	1,057,505	428,227	1,485,732

Source: "Twenty Years of Housing Progress", by Monica Pidgeon, in *Architectural Design and Construction*, London, April, 1943.

[1] Houses for general needs built under these acts were not subsidized.

Of the nearly one-and-a-half million units constructed under the housing acts between 1919 and 1938, slightly more than two-thirds were erected by local authorities, and the remainder by private enterprise. It is important to remember that the latter in Britain includes the work of the building societies as well as individual arrangements with contractors, and that both have benefited from various facilities provided by the housing acts. The significance of public assistance for housebuilding is perhaps best indicated by a single figure, which relates to England and Wales. Nearly 40 per cent of the total number of housing units built during 1919-1938, estimated to exceed 3·8 million units (Table 3, Chapter 1), were due to public encouragement of one kind or another. On public housing the national Exchequer has spent in this way around £200 millions in the two decades since the last war. Total contributions during 1921 to 1928 ranged between £8 and £9 millions a year, but in the 'thirties rose to £13-£14 millions annually.

British experience is such that the methods pursued deserve the careful attention of all students of housing. They are outlined below under the principal heads of finance, management, and construction costs and standards.

I. *Financial Policy: Public and Private Participation*

The success of any nation-wide housing program depends upon many factors. First, a definite goal is essential. The British people have evolved their objective, which is a home for every family, and a home which is adequate from the standpoints of size, equipment, sanitary facilities, and cost. To accomplish this end, it has been recognized that a large measure of government assistance is essential, a fact which raises the practical problems of how government aid shall be administered so as to achieve the desired goal most satisfactorily. In general, the British plan has been a combination of state aid and local administration, coupled with a local financial burden supplementing state funds.

Government-aided construction, inaugurated on a large scale immediately after the war because of the pressing need for increasing the supply of dwellings at low cost for low-paid wage-earners, gave a considerable impetus to building, and for four years the number of houses built with government assistance far outnumbered those built without such assistance. Again in 1925, when the

force of the 1924 subsidy became effective, subsidized houses outnumbered those built by private enterprise, and this continued until the 1923 subsidy expired in 1929. After that time, private enterprise forged ahead, and after July, 1934, no government-aided houses were built except those receiving aid under the slum clearance subsidy of 1930. Between 1919 and mid-1936, 1,313,879 government-aided houses were built, while private enterprise was instrumental in constructing 1,697,443 units.[1]

It appears that private enterprise and government-aided enterprise have followed parallel courses in the housebuilding program, although working on different levels, private enterprise catering to the higher income groups. No doubt private enterprise would have entered the low-cost building field to some extent had not the government done so. On the other hand, private enterprise has undoubtedly benefited by the impetus given to building through the large operations initiated by the government in the years just following the war.

The governmental financial schemes relating to housing and rendering assistance in various forms, which date from the war, may be grouped in three principal divisions, namely: general housing, slum clearance, and rural housing. Under these divisions aid is granted to public utility societies, building societies, and private individuals, as well as to local authorities.

(a) *General Housing*

The Housing and Town Planning Act of 1919 directed local authorities to draw up plans for providing workers' houses. The government guaranteed to compensate local authorities for deficiencies between income and expenditure on houses constructed under the *Addison Scheme,* contained in the Act, where such deficiencies exceeded returns from a local penny tax designed to cover such losses. Funds to carry on this subsidy were raised on long-term loans. Assistance to building societies was provided in the Act in the form of a percentage of interest and redemption payments, but building societies did not make much use of these facilities. Additional powers were provided by the Housing Act of 1919 which granted governmental subsidies in non-repayable lump-sum donations from £130 to £160. These subsidies were increased in 1920 to £230-£260. Types and total costs of houses to receive this assistance were specified. Because of the rapid increase in building costs and the heavy burden laid on the Treasury by demands for this subsidy, the granting of new subsidies was suspended in 1921.

Under the *Chamberlain Scheme* contained in the Housing Act of 1923, the government bound itself to give a limited contribution of £6 per house for twenty years to be applied to the loss which the local authorities might incur in building houses. Local authorities also were authorized to give assistance to builders or others desiring to put up workers' houses, such schemes generally requiring the approval of the Minister of Health. Power was also granted to the local authorities to increase the amount of the grant by assessing higher local taxes. These grants could be made for houses built either for sale or for rent, and were principally used for houses built for sale by private enterprise. These grants were not stopped in 1925-1926 as originally provided, but were extended in 1924 for five years, reduced in 1927 to £4, and terminated in 1929. With this assistance, 75,309 houses were erected by local authorities and 362,738 by private enterprise, the maximum program (around 115,000) being achieved in 1927.[2]

[1] Based on data from *Facts and Figures,* published by the National Housing and Town Planning Council of London, November, 1935.

[2] Certain standards were laid down as to size and costs. Subsidized houses could either be sold or rented, and there were no statutory limits on rent level or sale price. In practice, however, the grants were used mainly for houses for private ownership. Predominantly, they proved too expensive for working-class people, and catered most for the white-collar and better-paid artisan classes.

Through the powers delineated in this Act, local authorities were further authorized to make loans to private enterprise for building houses of not more than £1,500 in value. An earlier Small Dwellings Acquisition Act was amended to facilitate loans to owner-residents for houses of not more than £1,200 in value. Guarantees to building societies were authorized enabling local authorities to assist in such operations if it seemed desirable.

The 1924 law (the *Wheatley Scheme*) created a new form of financial assistance in an increased subsidy for houses not to be sold but to be rented under special conditions. The principal condition was that when the annual rates (tax on assessed rental value) were not over £4 10s. per house, such houses were to be rented at figures not exceeding those charged for similar prewar houses in the district. The 1924 scheme authorized a subsidy of £9 a year for forty years in urban areas and £12 10s. a year for forty years in rural areas. If the municipality, by enforcing the low rents, had to grant extra subsidies to the builders the state undertook to refund all costs exceeding four and a half pounds per house per year. Contrary to what was the case in the Act of 1923 the new Act gave public authorities the power to construct the dwellings directly instead of granting the subsidies to private builders if they so preferred. Under this Act, the most successful in point of numbers, 520,000 houses were built in the course of ten years, the expenditure of the government averaging about £3,750,000 annually. A revision of the Act in 1927 reduced the subsidy to £7 10s. in urban areas, and to £11 in rural areas. Grants were terminated in December, 1932, but building continued for some time after that date.

The Housing Act of 1933 discontinued the subsidies granted under the 1923 and 1924 Acts except for the subsidies for slum clearance, which were retained intact. A provision in this legislation empowered the Minister of Health to reimburse local authorities for part of any loss sustained in guaranteeing loans to building societies in order to encourage such loans. Building societies agreed under this Act to lend funds at one per cent below their normal interest levels. Not many houses, however, have been built with this assistance.

(b) *Slum Clearance*

The Housing Act of 1919 included assistance to local authorities in carrying out schemes undertaken for the clearance of unhealthy areas, in assumption of losses by the government for expenditures in excess of the limited liability of the local authorities. This assistance ended in 1921. A new application of subsidies was developed in the Housing Act of 1923 in which authorization was given the Minister of Health to make grants to local authorities towards loss incurred, the amount of the grant in the form of annual contributions being settled in each case through consultation with the local authority. The grant was not to exceed 50 per cent of the estimated average annual loss. Approximately fourteen thousand houses were built under assistance from this Act.

Yet another innovation in handling subsidies for slum clearance was brought forward under the Housing Act of 1930 (*Greenwood Scheme*). Annual payments were made on the basis of the number of persons displaced who would later be provided with new accommodations at low rents. These subsidies were 45 shillings per person rehoused in town, 50 shillings in rural districts in England and Wales, and 50 to 55 shillings in rural and urban areas in Scotland, annually for forty years. Additional payments could be applied if part of the building condemned was not insanitary and had to be purchased at market value, such supplementary subsidies not to exceed 15 shillings per person. When the land cost was more than £3,000 per acre in central city areas and tenants had to be rehoused in tenements of over three stories, the subsidy per person was raised to 70 shillings per annum for forty years. In four years following the enactment, some 27,000 houses were provided under this scheme. In April,

1933, in order to speed up the slum clearance activities, the government, through the Minister of Health, arranged to survey the country for slum clearance areas and those which required reconditioning.

In August, 1935, a further housing law was enacted which was designed principally to make better provision for the abatement and prevention of overcrowding, the redevelopment of urban areas in connection with the provision of housing accommodations and the reconditioning of buildings. This Act also provided for the establishment of a housing advisory committee and of commissions for the management of local authorities' houses. Provision was further made to enable a local authority, with approval of the Minister of Health, to arrange with public utility societies, building societies, and so forth, to provide housing for persons displaced by the furtherance of clearance schemes. Consolidation of housing contributions and accounts under the several housing acts now operative was provided, looking to the simplification of this part of the work. This Act modified the subsidies allotted for dwellings to relieve overcrowding as follows: on sites costing £1,500 per acre, 100 shillings per year per dwelling for twenty years; on sites ranging from £1,500 to £6,000 per acre, 120 to 160 shillings per year per dwelling for forty years. For buildings on land of higher price, the subsidy is increased 20 shillings for each additional £2,000 per acre paid for land.

(c) *Rural Housing*

The Housing Act of 1926 was designed to meet the special needs of rural workers, and entrusted County Councils with the authority to assist in financing the renovation of old houses or the remodelling of existing buildings for housing by agricultural workers where the cost was not under £50 on houses which when completed would have a value of not over £400. Contributions were to take the form of lump-sum payments for repair or annual payments during a maximum of twenty years. Total subsidies were not to exceed two-thirds of total outlay, or £100 per house. The benefit of the subsidies was to be passed on to tenants, and their rent during twenty years was not to be put over the normal level usually paid by agricultural workers in the district. This provision was obligatory unless it could be shown that the owner received less than 3 per cent interest on capital invested by him in improvements. Further provision was made in the Act for granting loans up to 90 per cent of the value of the improved house in addition to the subsidies. By an amendment to the Act in 1931, the term of the 1926 Act was extended to October, 1936.

Additional Treasury assistance was authorized in 1931 to assist in furnishing houses for rural workers and others in agricultural districts on recommendation of an Advisory Committee to be appointed under the Act. This assistance applied to districts where the local councils had satisfied certain conditions and filed applications before November 30, 1931. The Housing Act of 1935 extended the operation of the Acts of 1926 and 1931 until June 24, 1938, and also made the National Treasury contribution under these Acts available for dwellings owned by local authorities.

Financial Agencies

In addition to state aid to local authorities for general housing, slum clearance, and rural housing, provision has been made for construction without state aid through public utility societies and building societies.

Public utility societies. Provision has been made in the housing legislation to facilitate construction by public utility societies (voluntary housing associations) through loans and grants from the national and local treasuries.

The Act of 1930 provided for the granting of subsidies to public utility societies for new housing for persons displaced from a clearance or improvement

area or from insanitary houses. The annual grant may be equal to or greater than the contribution provided by the National Treasury. The amount is left to the discretion of the local authority.

The 1919 Act provided for advances of 75 per cent of the purchase price of the land and cost of the building as a loan. The amortization period was set at fifty years. The 1925 Act provided that local authorities might (*a*) make loans to public utility societies, and (*b*) subscribe for share or loan capital of such societies. The 1935 Act provided for government loans to public utility societies up to 90 per cent with local authority guarantee, but to 75 per cent if such guarantee cannot be obtained.

Approximately 250 public utility societies have been registered in Great Britain since 1919. The greater number of the houses erected through this agency have received government subsidy assistance.

Building societies. When the subsidy phase of the building plans in Great Britain was closed by the 1933 Housing Act, except for slum clearance, provision was made to aid building societies to become the sources of the cheapest form of finance available for the encouragement of private construction. These societies for a number of years have undertaken, through pooling of resources, to advance on mortgage for thirty years, 90 per cent (instead of 70 per cent as formerly) of the value of the building, at interest rates one per cent below normal. Rates of 3½ and 4 per cent, and advances on a thirty-year basis, are typical.

The building societies have played a significant part in British housing. It was stated in 1934 that they had been instrumental in providing over half of the two million houses built since the end of the war,[1] and a more recent review credits them with having been the intermediaries for 80 per cent of the assisted-private-enterprise group in British housing.[2]

Local authorities. Should private enterprise fail to utilize the facilities made available, provision is made for local authorities to build without subsidy. A Ministry of Health Circular of May 22, 1933, stated:

"The local authority will remain responsible for the provision of necessary houses in their district if private enterprise does not provide them, and it is understood that the Minister is now prepared to give due consideration to proposals of this kind provided that the local authority adduces satisfactory evidence (*a*) that the houses are actually needed in the particular area, and (*b*) that private enterprise is not attempting to meet the need, despite the new facilities afforded under the 1933 Act."

The Small Dwellings Acts and Section 92 of the Housing Act, 1935, provide for loans direct from local authorities to private persons for owner-occupied dwellings, and the Housing Act, 1933 (Financial Provisions) provides special facilities for houses built to rent.

On the local authorities (city and county councils) throughout the country rests the responsibility for providing adequate housing for their respective areas. There are several methods by which the local authorities can secure funds to carry out housing schemes which include purchase of the necessary land. There are: (1) borrowing directly on own account through the public issue of stock; (2) borrowing through banks and insurance companies through mortgaging their taxes and revenues; (3) borrowing through the Public Works Loans Board (also available to public utility societies); (4) borrowing from financial institutions by hypothecation of their National Savings Certificates to one half of the

[1] "Housing England", in *PEP* (Political and Economic Planning), London, December, 1934, p. 70.

[2] "...Between 1934 and 1938, the number of houses built in this country fluctuated between approximately 300,000 and 350,000 each year. Of this total, between 250,000 and 275,000—or, say, 80 per cent—were built each year by unaided private enterprise, financed to a large extent by building societies." "Building Societies after the war", by H. E. Wincott, in *The Banker* (London), April, 1943.

value of such certificate; (5) issuance of Housing Bonds by all but local authorities of metropolitan boroughs; and (6) imposition of special taxes, supplemented by government subsidy, as specified in certain subsidy acts.

In some instances the government has floated long-term loans to furnish funds for the liquidation of commitments assumed under legislation creating housing subsidies.

II. Management

Since 1919, provision of dwelling houses for low-wage working people has devolved on the government, and the local authorities in the various districts have had to build up a competent managerial staff to operate the large municipal housing estates which are now an adjunct to practically every large city in the country. At the end of 1935 twenty-eight of the local authorities in England had employed trained housing estate managers to care for the estates under their jurisdiction. Under the Housing Act of 1935, local authorities are empowered to set up a housing Management Commissioner to which the functions relating to management regulation, control, and repair may be transferred upon approval by the Minister of Health.

This is the first provision in any of the Housing Acts that has recognized a legitimate distinction between providing houses for the community and taking care of them after they have been provided. It is believed that Housing Management Commissioners should bring about a continuity of policy and extend the scope of professional house management. Such management, it is stated, has been found advantageous from the standpoint of improving the condition of tenants and preventing deterioration of the property. A Central Housing Advisory Committee was appointed in November, 1935, to advise from time to time with the Minister of Health and Local House Management Commissioners on specific questions referred to it. The Committee was empowered to make representations to the Minister on questions of general concern on the subject of housing.

One authority on estate management considered that at least five years' experience is necessary to enable anyone to take over the entire responsibility and management of municipal housing estates, and that generally estate management is distinctly a profession which requires years of training. Recognizing the unsatisfactory conditions growing out of the purely commercial relation between a landlord's agent and tenants, the Octavia Hill movement was started some years ago, in which the technical and social functions were combined and personal contact established between the management of housing estates and tenants. This experiment changed the attitude toward management, with the result that the rent collecting and the social work have now been separated in a good many instances. The value of the social work has proved so outstanding that special departments have been created to care for it.[1]

A number of problems have arisen in caring for the large bodies of people moving into new housing areas. The chief of these (as set out by the manager of the Estates Department of the city of Birmingham) are as follows:—

1. *Registration of applicants.* Applicants are registered so as to insure that they will be treated equitably, impartially, and with regard to their wishes as to location and rent level.

2. *Rental of house.* Segregation of applicants is made according to composition of family, investigation of current conditions of living, and checking of information previously given in application form, in order to allocate available houses to best advantage. Considerable care has been exercised to keep undesirable families from becoming colonized together, in order to avoid social dis-

[1] Two principal schools of management have been established. They are the College of Estate Management at 35 Lincoln's Inn Fields, W.C.2, established in 1919, and the London College of Estate Practitioners, 18 Gordon Square, W.C.1, established in 1924, both in London.

turbances in the community. The matter of placing families in immediate need of shelter in locations convenient to the work of the wage-earners has caused considerable difficulty and necessitated shifting later on. In some cases incoming tenants have been required to make a deposit to cover any damage which might be done to the premises during occupancy of a municipal house.

3. *Maintenance and repairs.* This phase of management has been facilitated by the establishment of repair depots centrally located so as to serve large areas of estate, each depot carrying its own stock and equipment. Orders for periodical work, such as internal and external decoration, are taken by the rent collector or through reports, letters, personal calls, and telephone calls. Buying of materials and equipment is usually done in large quantity in order to make savings in costs.

4. *Rent collection and rent defaults.* Most of the local authorities employ men in the management organization as rent collectors, and women as social workers. Rent collecting is regarded as a strictly business proposition, and the general preference is to have men do this work. In Birmingham it has been found that one man can collect from 650 to 850 houses per week. The collecting rounds are made Monday, Tuesday and Wednesday. Thursday is used for inspections with respect to complaints and repairs, while Friday and Saturday are utilized in balancing accounts and taking care of incidental tasks. It was found in Birmingham that 99·97 per cent of rent due was collected, and credit for this was given to the separation of the functions of rent collector and social worker. Out-of-work tenants are given a certain amount of time to pay up. They are interviewed by a clerk having special care of such cases, and an arrangement is made applicable to the case. A subcommittee meets regularly in the Council House of the estate to review these cases, and every effort is made to bring about an arrangement that will avoid the necessity for having the tenant vacate.

5. *Social work.* Questions arising to be handled by the social workers of the estate management are principally: (*a*) education of inhabitants of the older slum dwellings for occupancy of the newer, modern houses with respect to changed surroundings and cleanliness, and adjusting such tenants to the new quarters; (*b*) settling neighbours' quarrels; (*c*) teaching the value of insecticides and disinfectants; and (*d*) education of the children to appreciate the new environment. The type of woman to do this work must, it is said, be chosen carefully, and generally women of not below 30 years of age are chosen. Persons with a natural aptitude for handling people with tact and sympathy are preferred. A considerable amount of personal attention is given to families transferred from one environment to another, requiring daily visits prior to and after transfer. Extreme care is exercised to see that furniture and effects moved into new houses have been freed of vermin.

III. Construction Costs and Standards

During the 'thirties in Britain, it was estimated that the average cost of houses provided by local authorities, of the "non-parlour" type, with land, roads and sewers, was approximately £350 ($1,540) with a few exceptions deriving from local conditions. This figure excludes subsidy, but it is important to note that it assumes quantity construction. Various housing authorities placed the average cost *per room,* including the kitchen, of buildings erected during the same period under the various schemes, at £75 ($330). Since then, of course, wage costs have risen. Both costs and standards are not necessarily comparable with Canadian conditions, but they have been the subject of continuous consideration for many years in Britain, and the principal results are worth citing. As the attached tabulation indicates, there are several variations,

but the type which comes nearest to being the accepted standard is the "A3 Cottage", which consists of two floors and contains a large living-room, three bedrooms, kitchen, bath and toilet facilities, with a floor area of approximately 775 square feet.

TABLE 6.—AVERAGE PUBLIC HOUSING COSTS (NON-PARLOUR HOUSES), GREAT BRITAIN, 1927-1935

Year	Total cost	Cost per superficial foot	Year	Total cost	Cost per superficial foot
	£	s. d.		£	s. d.
1927	413	10.8	1932	304	8.3½
1928	362	9.5¾	1933	292	8.0
1929	345	8.11¾	1934	291	8.1
1930	340	8.10½	1935	298	8.3
1931	333	8.9¼	Average	331	8.10

Source: *Facts and Figures*, National Housing and Town Planning Council, London, November, 1935.

TABLE 7.—DESCRIPTION AND COST OF TYPICAL UNITS

Type	Description	Floor area	Approx. cost
A. 1. Aged Persons' Flats	Living room, kitchen, one bedroom, bathroom and lavatory combined, fuel storage and larder.	435 super. ft.	£239 (basic unit)
A. 2. Cottage type	Two bedrooms, living room, kitchen, bathroom, separate watercloset, coal storage and larder.	698 super. ft.	£293 (basic unit)
A. 3. Flat	Accommodations similar to A.2. Cottage built in two story blocks with two A.3. houses between, or in one block of four A.2. flats.	698 super. ft.	£264 (basic unit)
A. 4. Cottage	Four bedrooms, living room, kitchen, coal storage, larder, bathroom, water-closet.	938 super. ft.	£357 (basic unit)
Cottage Flats	Designed to utilize comparatively expensive land. Each block contains two A. 2. flats on ground floor with separate access at the ends of each and a self-contained cottage flat above with three or four bedrooms.	A. 3. type-2748 s.[1] A.4. type-2912 s.[1]	Per block of 4 dwellings £1140

Source: *The Annals*, American Academy of Political and Social Science, *op. cit.*

Based on a figure of £350, a division of costs accepted by several authorities for the 'twenties and 'thirties was as follows: (*a*) land, sewers, and street work, £50; (*b*) materials, £210; and (*c*) labour, £90. The general rule, derived from various examples, is that labour costs are one-third or less of the basic cost of the house. An analysis of the cost of a three-apartment house at Gateshead in 1933 put the materials cost at 76·4 per cent, which corresponded very closely to the results obtained in an investigation made in 1928 by Mr. Price Davies, where the general division of costs for materials and labour in an average three-room parlour cottage was found to be 68 per cent and 32 per cent respectively.

After a study of the subject in 1934, a group of economists in London suggested several ways of reducing costs of housing construction. Briefly, these are: (1) bulk buying of materials on long-term contract, which, it was pointed out, had not been exploited to anything like the full extent possible; (2) efficiency in the use of labour, but not any form of reduction in wages; (3) special systems

of construction, comprehending some degree of prefabrication; and (4) training of skilled and specialist personnel for management of construction and maintenance.

Inquiry made at the London County Council regarding their method of securing materials required in their house building operations revealed that all materials are bought on bids, larger or smaller according to the project at hand. Contracting to cover building operations is likewise covered by bids. This method is employed in the greater number of the large-scale building operations conducted by the urban district authorities, and through this bulk purchasing, economies have been effected by the reduction of material costs. In more recent years, the tendency towards standardization of design and fittings has also permitted a reduction in total material costs. Cost of construction of the typical A.3 (non-parlour) house decreased more rapidly over the period 1927-1935 than the general drop in the level of material prices, and this disproportionate decline in the cost of house construction when compared with general materials cost was at least partly due to the mass production methods.

Construction and Inspection Standards

A final matter on which British experience is valuable is that of the standards which have been applied, both in determining the need for demolition, and replacement, and in setting the accommodation requirements of the new houses.

Much of this has been put on an overcrowding basis. The Housing Act of 1935 defined as follows the "permitted number of persons" to occupy space provided under it:—

Rooms in dwelling	Persons
1	2
2	3
3	5
4	7½
5	10

with an additional two persons in each room in excess of five.

The standard of house occupation laid down by the Manchester Public Health Committee provides for not more than 2½ persons per bedroom, a child under 10 years being counted as a half a person. The Housing Act of 1935, after setting forth the occupation standards quoted above, makes it an offence to exceed those standards after sufficient housing accommodations have been provided.

House inspection under the Housing Act of 1925 provides a specific list of items that must be examined for the determination of "fitness for habitation" of a dwelling, but not for the observance of any specific standard with respect thereto. The Ministry of Health issued a number of years ago a *Manual of Unfit Houses and Unhealthy Areas,* but there is no specific obligation upon local (housing) authorities to adopt the recommendations made in the Manual. The Housing Act of 1925 stated (1) that "sanitary defects include lack of air space or of ventilation, darkness, dampness, absence of adequate and readily accessible water supply or sanitary accommodations or of other conveniences and inadequate paving or drainage of courts, yards or passages", and (2) that in determining for the purposes of the Act whether or not a house is fit for human habitation, "regard shall be had to the extent, if any, to which by reason of disrepair or sanitary defects the house falls short of the provisions of any by-laws in operation in the district, or of the general standard of housing accommodation of the working classes in the district".

Part II of the Housing Act of 1930 replaced certain sections in the Act of 1925 dealing with the repair, closing, and demolition of unfit houses. Houses which are unfit for human habitation are divided into two classes: (*a*) those which can be made fit at a reasonable expense and (*b*) those which cannot.

In the report of the Council for Research on Housing Construction referred to above, the statement is made that "a careful examination of the . . . existing system forces us to the conclusion that a detailed set of national standards of fitness is not a practicable possibility", and that "almost all the questions concerned are, at the critical point of application, matters for individual expert judgment". Under the provisions of the Act of 1930 the local authority in any district must take action wherever it is satisfied upon consideration of an official representation or a report from any of its officers or other information in its possession, that any dwelling house occupied or of a type suitable for occupation is in any respect unfit for human habitation. Official representation means report by a medical officer of health. Generally the enforcement of standards is left to the entire discretion of the local authorities.

A draft set of national outline standards of equipment and fitness which a group of experts believed corresponded to the reasonable needs of the community was drawn up during 1935, endorsed by an expert committee set up by Political and Economic Planning (PEP), and published by the Council for Research on Housing Construction. The standards naturally have different conditions in mind from some which would apply in Canada, but they are worthy of examination, and are reproduced accordingly in the schedule at the end of the chapter.

IV. Developments since the War: Town Planning

Although the war gave new stimulus to housing and town planning in Britain, active interest in their relationship has been continuous since the last war. The record of slum clearance and of subsidized housing measures continued with variations throughout the depression years. Although the subsidies to private builders and to local housing authorities varied in coverage with economic conditions, the weight of cost on the exchequer, and changing political policy, they provided a lever by which the total volume of housing was greatly increased. This in itself was enough to make town planning a practical issue. Town planning legislation in Britain actually may be dated from a Housing Act of 1909,[1] but it was another decade before real progress was made. From 1919 to 1932 a series of acts encouraged local authorities to institute plans which would guide and regulate developments in their areas for the benefit of the community as a whole. During these years groups of trained town planners with experience in techniques were built up, and have recently been coming more and more to the forefront in Britain.

With the movement of industry away from the old industrial centres of the North during the inter-war years and the consequent redistribution of population, the realization grew that town planning would be required on a far greater scale than before and that it must be co-ordinated with other aspects of work and living. The Barlow report, completed just prior to the war, analyzes the movement of industry and population between the two wars and recommends improvements in congested urban areas, decentralization of industries and a more balanced (and therefore necessarily planned) industrial development. This report and others of a more recent date are now under consideration by the Minister of Reconstruction.

The war of course brought keener recognition of the coming housing shortage and aroused a new surge of interest in ways and means to deal with the situation. New housing and town planning proposals were early foreshadowed.

[1] The Garden Cities Association (now Town and Country Planning Association) was founded in 1899.

It was obvious from the beginning that the degree of dislocation would far exceed that of the last war. The devastation wrought by bombing variously estimated as affecting one-fifth to one-quarter of housing in England, required far-reaching schemes for physical reconstruction. Professional and private organizations as well as local and regional Housing Authorities have been working on plans for rebuilding town and countryside. And a new governmental lead was given in February, 1941, when a Minister of Works and Buildings was appointed, and authorized to start preparatory work on the problems of physical reconstruction.

The Minister of Works and Planning Act of 1942 paved the way for a central organization of planning measures by transferring the planning functions previously exercised by the Minister of Health (under the Town and Country Planning Act of 1932) to the Minister of Works and Planning. The Minister of Health remained responsible for housing policy and for standards of accommodation. The object of the new legislation was to facilitate the right use of land for all purposes and to assist local and regional authorities in preparing plans which would reflect the national policy for urban and rural development. Local authorities were encouraged by the new Ministry to review their earlier surveys in the light of new and changing conditions and to draw up at least provisional conclusions for practical action. A greater measure of co-operation among the local authorities themselves was urged in the interest of larger and more effective planning units.

The growing importance attached to the planning of land use was reflected in legislation the following year (February 4, 1943). The Minister of Works and Planning became the Minister of Works, and a separate Minister of Town and Country Planning was appointed, "to be charged with the duty of securing consistency and continuity in the framing and execution of a national policy with respect to the use and development of land throughout England and Wales." Speaking on the Bill in the House of Commons, Sir William Jowitt forecast that the Town and Country Planning Act of 1932 would be amended to give very much enlarged powers to local authorities to buy large areas and plan them as a whole. In Scotland, the Town and Country Planning (Interim Development) Act, of November, 1943, brought under planning control land which had not been attached by the 1932 Act (Scotland). The aim of this Act was specifically to secure more effective control of development in Scotland pending the coming into operation of planning schemes.

Co-operation between government authorities and the multitude of private and professional housing and planning organizations through the country had been early considered, and was implemented in January, 1941, by the appointment of a Minister without Portfolio charged with the study of post-war reconstruction requirements. The Rt. Hon. Arthur Greenwood and later Sir William Jowitt, K.C., presided over this department. Both maintained close collaboration with other Departments and with outside organizations, particularly the national Social Survey on reconstruction matters organized through Nuffield College, Oxford. The recent creation of a full Ministry of Reconstruction (November, 1943) will doubtless hasten the co-ordination of schemes prepared by government departments and by committees both within and outside the government into a national plan. Lord Woolton was appointed Minister, to prepare what the Prime Minister termed "a vast and practical scheme to make sure that in the years immediately following the war, food, work, and homes are found for all."

Investigations fundamental to these objectives have been carried on by the Nuffield College Social Reconstruction Survey since its establishment in the spring

of 1941.[1] From the mass of information supplied by local investigators, reports on a national scale are compiled, as well as regional reports dealing with the situation by industrial area. Among other topics these have dealt with the scope of reconditioning, housing costs, the organization of the housebuilding industry, training and recruitment for the building crafts, and the effects of migration on building. The actual working of the Town and Country Planning Acts in local areas has also been surveyed by the local investigators. The work which has been done on the need for a policy permitting rapid expansion of the skilled labour force in the building trades in a manner which would ensure trade union co-operation, has already been incorporated in government policy to a considerable extent.[2]

Also deserving mention is the Royal Institute of British Architects, as one of the most important of the professional organizations engaged in surveying various phases of building and planning. Early in the war a Reconstruction Committee was appointed to consider and formulate the policy of the R.I.B.A. and allied societies on the subject; and subcommittees were appointed to deal with professional studies and qualifications; planning and amenities; building legislation and the building industry and construction techniques. The R.I.B.A. has recommended that building and town planning be placed on a national construction basis; it urged the immediate institution of a single national planning authority under which there would be neither the present departmentalized jurisdiction nor the confusing exemptions from control of some departments and statutory undertakings. It is noteworthy that the Institute favours regional administrative offices as well as a regional grouping of local authorities, in order to avoid the limitations of local administrative boundaries. It is recommended, lastly, that all land use should be publicly controlled irrespective of ownership; and that local authorities should be relieved of the financial burden of carrying out regional plans.

The R.I.B.A. plan would include within its scope the location and decentralization of industry; control of design; research into the natural resources and assets of the country for the purpose of full utilization; exploratory work on possible new services; the reservation of essential agricultural land and the planning for national parks and forestry reservations, etc.; the reconstruction, extension, and re-siting of existing towns, and the provision of new towns; the provision of healthy villages and better facilities for community life in rural areas. In the planning of towns, the importance of "constructive guidance rather than restrictive control" is stressed. The R.I.B.A. envisages a national code of legislation, to be administered from regional offices, which would set standards of health and safety, structural practice, and financial provisions. It will be apparent from the recommendations of the Scott Report (Appendix J.) that these views have gained substantial support.

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[1] The College was founded to promote co-operation between academic workers in the field of social studies and those engaged in administration, business and similar fields, but the war intervened before the College was actually organized. The trustees of the College and their associates later decided that their special task could very properly be that of post-war reconstruction research which would require a great deal of preliminary work even during the war if prompt measures were to be taken during the critical period after hostilities ceased. Special fields of study chosen were the shifts in population and industry and the attendant needs in housing, social services, and government administration. Under the chairmanship of G. D. H. Cole, the Survey proceeded by setting up a network of local investigators throughout the country, all engaged on a voluntary basis and drawn largely from among university staffs and other professional groups in the local areas.

[2] Two requirements were predicated in the Nuffield report: a guarantee of a long term building program on a large enough scale to permit satisfactory assurance of continuous employment; and a "guaranteed week," probably financed by some sort of pooling plan worked out by the industry to protect the outdoor trades from loss of time owing to bad weather conditions. The training schemes proposed cover a national apprenticeship scheme; a plan for the completion of interrupted apprenticeships; shortened apprenticeships for boys who have been working in the industry as unskilled workers; provision for up-grading suitable builder's labourers; and special training schemes for ex-servicemen. An extension of vocational specialization in building and kindred techniques at the secondary and continuing school level is recommended; also attention to training in new crafts and processes.

There is live recognition in Britain that the capacity of the architectural profession as well as of the building industry will have to be expanded to the utmost to cope with the arrears in building accumulated during the war and the damage caused by enemy action. In view of the vast amount of building work to be undertaken and its urgency, the R.I.B.A. recommends that the wartime system of controls and priorities should continue for some years "in order that the available number of architects, builders' operators and building materials may be used to the best advantage as speedily as possible. This will be necessary to insure that the most vital work receives early attention in an ordered scheme of reconstruction". To stimulate the greatly needed co-ordination of the building industry, a central council is proposed which would co-operate with government departments; and a government grant to a Building Research Organization for the purpose of furthering centralized research into building practice is also recommended. Lastly, the relationship between planning and architectural functions has been critically reviewed by the R.I.B.A., and proposals made to reduce the high cost and waste incident to planning and building without the professional help of architects which has been prevalent in the past.

A number of the institutions contribute more or less continuously to the strength of the town planning movement. The Town and Country Planning Association has been carrying on educational work for town planning for many years, and has perhaps gone farthest in formulating the principles which are basic to an integrated planning scheme. The Town Planning Institute is a body set up for the purpose of undertaking research on town planning problems and legislative requirements; and both the Institute and the Town and Country Planning Association submitted influential memoranda to the Uthwatt and Scott Committees. A third unit, the National Housing and Town Planning Council, is concerned with public information and education. Through its activities and its monthly bulletin, *Housing and Planning News*, it strives to create a strong public opinion on the adoption of adequate standards of accommodation, and the abolition of unhealthy housing conditions.

In addition to these and other private organizations,[1] departmental committees and advisory committees appointed by the Government at various times have been investigating particular subjects related to housing and town and country planning. The most important is the Central Housing Advisory Committee which has already been referred to above. This statutory committee was set up under the Housing Act in 1936. Recent groups working under it include a rural subcommittee, and a subcommittee on the design of houses and flats in post-war building, which the Minister of Health reports has a strong membership and includes working women. A special subcommittee has also been appointed to study the role of private enterprise in post-war housing. An advisory body which pre-dates the war is the Women's Advisory Housing Council, which was formed in 1937 to advise the Ministry of Health and other organizations concerned with housing, on the views of working women on housing matters. Since the war the Council has made a large-scale inquiry into the housing needs and preferences of women in the lower income brackets, and presented a report on this subject to the Minister of Health. At the Council's request, the Royal College of Physicians and Surgeons prepared standards which should apply to the physical structure of houses from the point of view of health.

The Scott and Uthwatt Reports

In 1941 the Minister of Works and Buildings appointed committees to consider two questions fundamental to planning, namely, land acquisition and

[1] Two others demand mention. (1) The Housing Centre (in London) which maintains a library and information service, acts as a clearing-house for housing associations of many kinds, holds weekly meetings, and issues a monthly bulletin and information sheets. Since the war its attention has centred on wartime problems and postwar plans. (2) A Community Centres Joint Research Committee has been working with a Leverhulme Grant to give special study to the design and equipment required in community centres.

compensation, and the development of rural areas, and the subsequent reports have become widely known. The Scott and Uthwatt Reports (and the Barlow report, referred to above, with which they are usually linked) are to housing and town planning what the Beveridge Report is to social security, and of equal significance.

The Expert Committee on Compensation and Betterment was appointed in January, 1941, under the chairmanship of Mr. Justice Uthwatt with the following terms of reference:—

"To make an objective analysis of the subject of the payment of compensation and recovery of betterment in respect of public control of the use of land: to advise, as a matter of urgency, what steps should be taken now or before the end of the war to prevent the work of reconstruction thereafter being prejudiced."

The second committee, under the chairmanship of Lord Justice Scott, was set up in October, 1941, and instructed,

"To consider the conditions which should govern building and other constructional development in country areas consistently with the maintenance of agriculture, and in particular the factors affecting the location of industry, having regard to economic operation, part-time and seasonal employment, the well-being of rural communities and the preservation of rural amenities."

The reports of the Uthwatt and Scott Committees were submitted to Parliament in August and September, 1942. In view of their importance, a careful summary of the principal recommendations has been prepared (Appendix J) and need not be elaborated here. It may be noted however that the first step towards the establishment of a Central Planning Authority, recommended by the Scott, Uthwatt, and Barlow reports, has been taken by the Government in the creation of a separate Ministry of Town and Country Planning, already mentioned. This step, in the words of the Lord Privy Seal, "marked the Government's agreement in principle to setting up a central body and planning the use of land throughout the country, and it provided machinery for controlling the use of land in accordance with future policy". A Town and Country Planning Development Bill has been promised, to provide for the acquisition of land. The reports are still before the Government and are being considered by the departments concerned and by the Minister of Reconstruction as a part of the overall scheme of national planning. In a recent speech, the Minister of Reconstruction, Lord Woolton, stated that local authorities already held sufficient land for more than 100,000 houses and were in the process of acquiring sites for another 100,000. He indicated that the proper development of the land would not be delayed by selfish motives.

Meanwhile, in spite of the lack of any pronouncement on national policy for planning and finance, steps have been taken to get local building plans under way. Early in 1943, the Minister of Health asked local authorities to choose suitable housing sites, and in co-operation with the regional planning officers, to formulate the necessary plans which would enable them to make an immediate start on one year's building work as soon as they are authorized to do so. The raising of loans and compulsory purchase orders were sanctioned. Local authorities were asked to take note of outstanding programs for slum clearance, the loss of houses from war damage, and the changes that have occurred during the war, with their annual output of houses in prewar years being taken as a rough guide.[1]

[1] This directive, coming before the statement of any national and regional plan of land development, has aroused criticism from the Town and Country Planning Association who see in it failure of the hopes aroused by the "blitz" and two years of national discussion. The Association points out that until the Government announces a policy on the postwar location of industry and towns, local authorities are forced to gauge their programs on prewar assumptions, with the result that "the largest cities will prepare the largest housing schemes and that the whole disastrous process of increasing the concentration of business and people in these cities will be recommenced." (*Architectural Design and Constructions*, April, 1943, p. 69.) An added difficulty lies in the financial inhability of local authorities to take the risk of setting standards for major rebuilding, decentralization and so forth, until such time as they are assured of the extent to which the Government will bear the costs.

Indications of Postwar Building Programs

A recent development which has again put Britain in the forefront of discussion on housing policy was an announcement of a training program for building workers, made in February, 1943. Agreement has been reached with the building employers and workers on the scale and methods of recruitment and training of building workers, and on the establishment of the principle of the guaranteed week. The program has the dual aim of maintaining stability in the industry and eliminating casual labour. Under the plan a total of 1,250,000 men will be trained as the basis for a 12-year building program to be formulated. (As envisaged, the program falls into two parts, an interim period of two years largely for repairing overdue and postponed work, and a long-term period of ten years.) Courses of instruction will include special training of adults on a large scale, undertaken and paid for by the government, and apprenticeship training.[1] During the first three or four years, when apprenticeship cannot meet the demand, intensive training courses will be given to about 200,000 selected men. Press comments suggest that work will be found for as many as five million persons in all the jobs connected with the program including the securing of materials, fabricated parts and fittings, transport, planning and so forth.

It was officially stated in July, 1943, that detailed estimates are being prepared on the labour and materials which will be required for repairing war damage, making up arrears in maintenance and repairs, and providing new buildings.[2] This is a task of considerable magnitude which means bringing into some sort of balance residential and non-residential building requirements, effective co-ordination of the building industry, the supply of skilled labour, and costs. On the basis of pre-war building experience, the Minister of Health anticipates that one-half of all the construction in the first decade after the war will be connected with housing, and has put housing requirements at three to four million dwellings.[3] The figures are conjectural and subject to major decisions regarding the location of industry and the general plan of development.

Post-war demands have served to reopen the question of costs, and the need for greater efficiency of the building industry is the subject of official concern. Discussing the benefits of long-term planning to the stability of the building industry, the Minister of Town and Country Planning (L. S. Morrison) emphasized the contribution the industry has to make in resources and better organization if it is to meet the pace at which reconstruction must be carried out. A financial aspect not always clearly realized was pointed out by the Minister when he stated that, "the financial problem lies in large measure in the 'dead' period between the time when liabilities are incurred by the planning authority in respect of land acquisition and the execution of public works, and the time when the revenue flows in from completed buildings. It is within the competence of the building industry to reduce that period by the introduction of new methods and improved organization. The more rapid the process of rebuilding, the less is the dead-weight of the financial burden; and the extent to which the

[1] A Building Apprenticeship and Training Council has been created, on which representatives of educational bodies and of industrial and professional interests are included. It will be the task of the Council to ensure that training is available for the right number and quality of young craftsmen to meet the requirement of the building industry. Among the matters to be considered are minimum standards of apprenticeship, the maintenance of a register of apprentices in training, and training completion certificates.

[2] The Government has since decided to make available to local authorities plants and machinery as they become available from airfield construction, for the preparation of housing sites (Minister of Works, Lord Portal to House of Lords, February 8, 1944).

[3] Other British estimates are referred to in Chapter 1. It may be noted that in estimating housing arrears, G. D. H. Cole (Nuffield Survey Memorandum 15, 1941) regards temporary housing in areas of war activity as of doubtful value for housing purposes after the war because of their location as well as types of structure and does not include them in his estimate. This evaluation would not apply to the 3,000 dwellings for rural workers initiated in 1943, which are suitably located and are planned with standards of space and accommodation one-third higher than in earlier low-rent houses.

burden can be reduced necessarily has an important bearing on the extent to which large-scale plans for reconstruction can be put in hand." In an address to the Building Congress in July the Minister of Health sounded another note of warning on efficiency and costs: "We must be able to produce houses at the right prices and right level or rents . . . . Unless we can get the cost of house production into a proper relation to other costs of production and unless we can produce houses at a cost within the means of the general body of the community, we may, in my view, say goodbye to a long-term program for a prosperous building industry and a well-housed people."

These problems have not been left entirely in the realm of admonition, specialists having been appointed to investigate more economic forms of construction. Lord Portal, Minister of Works, has set up a Postwar Building Directorate to study standards and standardization[1] particularly of materials and specifications. The Directorate works through as many as 23 study committees composed of exports in particular branches; eleven are convened by government departments and twelve by professional and trade organizations. The Minister has arranged for experimental building development in order to ensure practical tests of promising building materials. To stimulate private enterprise, he has appointed a Controller of Experimental Building to insure certificates for materials and permission to build. A building research officer has been appointed to undertake a systematic analysis into building costs.

The foregoing has dealt principally with plans for England and Wales. The following extracts from the report of the Department of Health for Scotland, 1943, may be sufficient to illustrate that Scotland has been equally active in developing a post-war housing program:

"Extensive preparations are being made for the post-war housing program. The Scottish Housing Advisory Committee was reconstituted in August, 1942, and three subcommittees were set up to consider housing design and layout, the furnishing and equipping of working class houses, and the measures to be taken to secure the best distribution of new houses in the immediate post-war period. Members with special knowledge of the subjects of inquiry, including a number of housewives, were added to the subcommittees. The work of the subcommittees has attracted widespread interest, and they have received evidence and suggestions from many organizations and individuals interested in housing, including men and women in the Forces and in war industries.

"A Technical Committee has been set up by the Secretary of State in conjunction with the Minister of Health and the Minister of Works to investigate new methods of house construction. Extensive inquiries with which the Department are closely associated are also being carried out into such matters as prefabrication, standardization of building components and fitments, and the adoption of standard codes of building practice.

"All local authorities who do not already own sufficient land for one year's housing program have been informed that they should earmark the necessary land and that, if it is approved by the Department for planning purposes, they may proceed immediately with its acquisition. The aim is that at the end of the war all local authorities should have sites, layout and type plans, and specifications ready so that they may be in a position to resume building immediately."

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[1] Addressing the House of Lords in February, 1944, Lord Portal stated that a great deal of work is being done on standardized fittings of all kinds, for example, the size of metal windows are to be reduced to three basic types capable of producing over 50 varieties.

Recommended Housing Standards

(Council for Research on Housing Construction, Britain)

1. *Light and Air*

The windows of any room must not be smaller than one-tenth of floor area, and the opening portions thereof not smaller than one-twentieth of the floor area. All bedrooms without a flue, all water closets and larders should be provided with an air-brick of 9 inches by 6 inches, 50 per cent open, or the equivalent in ventilation.

2. *Approach*

If the dwelling is on an upper floor it must be reached by stairs which are safe and reasonably lit, and provided with efficient handrails, and must not be more than five stories high, unless a passenger lift is provided. There must be a paved way from the street by which access is gained.

3. *Structural Separation*

If the premises are structurally subdivided the partitions must be constructed in proper and workmanlike manner, and must be sufficiently solid to prevent undue noise and annoyance.

4. *Drainage*

There must be efficient and direct connection with the main drainage system (if available); otherwise with an efficient cesspool. There must be sufficient paving around any gully taking off waste water.

5. *Sanitation*

There must be a separate water-closet (or chemical or earth-closet) for each family with proper ventilation from the external air and means of direct access without passing through any part of the building occupied by another family.

6. *Water*

There must be a constantly available supply of drinking water laid on within each part of the dwelling separately occupied.

7. *Scullery*

There must be a scullery separate from the living-room fitted with an efficiently drained sink. (The term "scullery" includes "kitchen" and "kitchenette".) There must be no sink in the living-room.

8. *Refuse*

In the absence of a dust-shoot there must be proper and sufficient space for storage of household refuse pending removal.

9. *Storage*

There must be a food cupboard in a reasonably cool position with proper ventilation from the external air and protection against dust and flies. There must be provision for keeping utensils and for storage of coal or coke where required.

10. *Repair*

The structure as a whole and all essential equipment must be kept in a state of repair which is safe and serviceable for the occupants and free from dampness.

11. *Local Regulations*

There must be local regulations dealing with: (*a*) provision of gas or electricity (if available in the neighbourhood); (*b*) provision for cooking, heating, washing clothes and bathing of a type depending upon the facilities available in the neighbourhood; (*c*) provision of yard, garden or other open space.

CHAPTER 3

HOUSING LEGISLATION IN THE UNITED STATES

During the last war the United States Government provided some housing facilities with public funds, mainly for war production purposes in congested areas, but no large-scale housing program was developed until the 'thirties. A rapid development then took place, its tempo accelerated by the problems which stemmed from the financial crisis of 1929. A bewildering succession of acts, amendments and executive orders placed housing functions in diverse federal departments as the administration endeavoured to adapt housing legislation to specific economic and social need. The legislation sought to increase construction activities, alleviate financial strain and unemployment, further home ownership and provide decent minimum shelter, both urban and rural.

Because this legislation had to deal with geographical conditions very similar to those of Canada, a review of some of its main features has been undertaken here. It should be understood that this review is confined largely to financial and administrative techniques as put into operation by the federal government, and that it does not attempt to deal with other aspects of housing such as the extent to which supply measured up to need, municipal procedures, housing design, and so forth.

After 1940 attention was particularly focused on co-ordination measures (as well as legislation to provide emergency housing for workers in essential war industries), and it is convenient to take a recent year as a starting point. In February, 1942, the National Housing Agency was created as a move to co-ordinate the housing functions and activities of more than fifteen federal agencies which had grown up in the preceding decade. Before describing some of the more important aspects of the legislation, it is desirable because of the importance of this co-ordination, to outline briefly the present organization under the National Housing Agency

Present Housing Administration

The National Housing Agency to-day comprises three constituent units under the direction of the Office of the Administrator: the Federal Housing Administration, The Federal Home Loan Bank Administration, and the Federal Public Housing Authority. These organizations work in co-operation with each other and with other federal agencies including the Federal Works Agency, the Federal Reserve Board, the War Production Board and the Bureau of Labour Statistics.

Office of the Administrator. In addition to directing the work of the constituent units, the Office of the Administrator carries on urban development planning in the Division of Urban Studies, the Technical Division, and the Research and Statistics Division, which were established by the Administrator as part of his reorganization plan. Outlines for study of postwar housing programs have been prepared but no specific programs have as yet been completed. One of the objectives is the development of housing programs by agencies of local government.

A special duty of the Administrator, in co-operation with the War production Board, the War Manpower Commission and other federal agencies, is to investigate the need for war housing in shortage areas and to determine to what extent and in what way the need can be met: by greater utilization of existing housing, by private new construction, or by publicly financed housing.

Federal Housing Administration. Created by the National Housing Act of June, 1934, the Federal Housing Administration is concerned with the maintenance of a sound home mortgage market and the improvement of housing standards. FHA has had most to do with the system of mortgage insurance, the principal method of extending general assistance to housing adopted in the United States, which is discussed at other points in this report. The regular operations of FHA include underwriting, technical, and research and statistics divisions, and various special studies, undertaken by planning experts on its staff, are also directed towards this end. A varied output of public information, including newspapers, booklets, leaflets, manuals, etc., has been provided by the Administration.

Federal Home Loan Bank Administration. The Federal Home Loan Bank Administration comprises three component agencies: the Federal Home Loan Bank System, a central credit reserve system inaugurated by Congress in 1932 for savings and home financing institutions; the Federal Savings and Loan Insurance Corporation, created in 1934 for the purpose of insuring savings under federal and approved institutions (savings, building and loan); and the Home-Owners Loan Corporation which was created as an emergency measure in 1933 to aid distressed home owners in the depression years. The Administration maintains a continuing study of conditions in the fields of savings and home mortgage finance.

Increasing attention is being given to the problems and opportunities of the post-war period, and of the contribution the Administration and its agencies, and associated savings and loan associations can make to the post-war enonomy. The consideration of post-war problems, programs, and policies is carried on by the regular staff as part of its normal operating functions.

Federal Public Housing Authority. The Federal Public Housing Authority was established as one of the three constituent units of the National Housing Agency, to centralize all government activity concerned with low-rental and low-cost housing. The functions and duties relating to public housing were formerly vested in various federal agencies, including the United States Housing Authority. This latter was created as a corporation of perpetual duration to assist local public housing agencies in providing decent, safe, and sanitary dwellings for families who cannot be adequately housed by private enterprise. The FPHA is now administering the federally assisted long-term public housing program, and is also concerned with post-war planning in this field.

The FPHA co-operates in its post-war planning studies with the Office of the Administrator and other constituent agencies of the NHA, the Bureau of Labour Statistics, the National Resources Planning Board, and other governmental agencies.

I. Home-Ownership or Mortgage Legislation

Existing legislation and some of its experience may now be systematically outlined by classifying it under four headings: home-ownership or mortgage legislation; public or low-rent housing; rural housing; and war housing. Beginning with assisted home-ownership, the National Housing Act is the most familiar and important (its division into sections being similar to the Canadian National Housing Act), but assistance to home loan institutions precedes it chronologically.

1. *The Federal Home Loan Bank Administration*

The Home Loan Bank Act, passed in 1932, created the Federal Home Loan Bank System in order to provide a credit reserve for home financing institutions and thus facilitate the payment of mortgage debts by home owners. The capital stock of the 12 regional banks in the system is owned by the United States,

and by institutions accepted as members of the system which are entitled to obtain short and long-term advances from the banks. Institutions eligible for membership include: building and loan societies, homestead associations, savings banks, co-operative banks, and insurance companies.

In 1933 the Federal Home Loan Bank Board was made responsible for the chartering and supervision of privately financed Federal Savings and Loan Associations established "to provide local mutual thrift and home-financing institutions in which people could invest their funds, and to provide for sound and economical home financing". The associations are permitted to make loans up to $20,000 on the security of a first mortgage lien on home properties. Each association is required to be a member of its district Federal home loan bank, and to obtain insurance of its investors' accounts by the Federal Savings and Loan Insurance Corporation up to $5,000 on each. The latter institution was set up by Title IV[1] of the National Housing Act in 1934.

The Home Owners' Loan Corporation, operated by the Federal Home Loan Bank Board was established in 1933 by the Home Owners' Loan Act. It is a public corporation whose stock was subscribed by the Secretary of the Treasury with funds provided by the Reconstruction Finance Corporation. It was one of the emergency depression measures of 1933 associated with the first operations of this Corporation. The HOLC was authorized to make loans which were repayable in periods up to 15 years, and later 25 years,[2] on the security of homes valued at not more than $20,000. The amount of a loan was limited to 80 per cent of the appraised value of the property, with a maximum of $14,000. Up to June, 1936, when lending operations ceased, the HOLC had made loans totalling $3,093,451,000 to some 1,000,000 home owners, mainly to refinance homes threatened with foreclosure.

2. *The National Housing Act*

The National Housing Act, passed in 1934, instituted government insurance of mortgages on residential property. It was the most extensive and coherent act to be passed thus far. Under the Act, the creation of the Federal Housing Administration was authorized to carry out its provisions. FHA (as it is widely known) does not lend money, nor does it build houses; it provides a system of insurance for loans made by private lending institutions. It is the American counterpart of the Canadian National Housing Act which proceeds by providing a proportion of the capital required rather than by insurance. The immediate purpose of the legislation was to stimulate building and allied industries and so alleviate unemployment, and this aim was served by Title I of the Act, which provided insurance for approved financial institutions against losses on short-term loans made to finance alterations, repairs, and improvements on real property.

Titles II and III were concerned with housing finance and had long-range objectives, namely, to improve the methods of home mortgage financing and the operations of the mortgage market, and to encourage low-rent housing developments.

Title III gave authority to the Federal Housing Administrator to provide for the establishment of national mortgage associations which were authorized to buy and sell FHA-insured mortgages and to borrow money for this purpose through the issuance of notes or bonds. The only association chartered under Title III is the Federal National Mortgage Association, incorporated on February 4, 1938, and owned and operated by the Reconstruction Finance Corporation.

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[1] United States statutes are frequently broken into sections called "Titles", a term not used in Canadian legislation.

[2] The first regulations permitted loans of from 1 to 5 years, and generally required payment to be made in monthly instalments.

State enabling legislation was required to allow various types of financial institutions to participate in the FHA program. By 1942, a total of approximately 250 State enabling laws bearing on the Federal Housing Administration's activities had been enacted; these covered all the 48 States.

To encourage the participation of the private home construction industry in the war housing program the National Housing Act was amended in March, 1941, by the addition of Title VI, dealing with Defence Housing Insurance. It authorized the insurance of mortgages on new homes erected in localities where war production created special problems, i.e., in areas designated by the President as "having an actual or impending housing shortage sufficient to impede defence activities".

Property improvement (Title I). Part of this title I gives authority to insure approved lending institutions against losses on loans made for alterations, repairs, and improvements on real property. The face value of an insured loan was limited to $2,000; with respect to maturity, interest and other conditions the short-term notes taken for advances were required to conform to the rules and regulations of the Administrator.[2] The Act also provided that only 20 per cent of the total amount of the loans made by any financial institution could be insured, and permitted the Administrator to incur a total liability up to $200,000,000.

A series of amendments revised loan limits and increased the scope of the Act. In 1936, the 20 per cent limitation was reduced to 10 per cent, and the maximum liability to $100,000,000. Provision was made for insurance for "catastrophe" loans, that is, loans made for the restoration and replacement of improvements on real property, and equipment destroyed or damaged by earthquakes, floods or other catastrophes.

In 1938 the property improvement plan was put on an income-earning basis by the provision that an insurance premium charge be made. The premium charge was absorbed by the lending institutions and did not increase the cost of Title I loans to the borrower. A year later, the Title I Insurance Fund was set up to be used as a revolving fund. This is credited with all of Title I approval fees, insurance premiums and cash recoveries on claims paid and is charged with expenses incurred and claims paid under Title I.

Other amendments made in 1938 authorized the insurance of loans up to $2,500 made for the purpose of financing the construction of new dwellings; previously loans eligible for insurance under Title I could be used only for property improvement and not for new construction.[1] By further amendments passed in 1941 the maximum amount of loans for alterations and improvements was increased to $5,000 and for new structures to $3,000. Loans exceeding $2,500 were permitted for a term up to 5 years and 32 days.

In 1942, for the purpose of increasing the production of accommodation for war workers, amendments of the National Housing Act were passed providing insurance on loans made to finance repairs to existing houses and the rehabilitation of substandard structures in designated war housing areas. The maximum liability outstanding at any time was increased by the 1942 amendments from $100,000,000 to $165,000,000.

From the beginning of operations in 1934 to the end of 1942, the total of property improvement loans and loans made by the FHA under Title I, in round numbers, was 4,020,000 or about half a million a year, but the number of new small-home construction loans over the period was only 36,700. The

[1] Institutions were permitted a maximum discount of $5.00 on $100.00 note for one year on improvement loans (effective rate of return 9·7 per cent per annum) and a discount of $3.50 on loans for new construction (effective rate 6·7 per cent). Improvement loans were permitted for a term of 5 years and 32 days and new construction loans for 7 years and 32 days.

aggregate of these insured loans represents an amount of $1,681,226,529. In 1942, 79·4 per cent of the improvement loans insured covered improvements to single-family dwellings.

Mortgage Insurance under the National Housing Act

(*a*) *Home Mortgages.* Prior to the enactment of the National Housing Act in 1934, the main obstacle to achieving home ownership was a mortgage system which was extremely costly and productive of hazardous burdens for the borrowers. Reputable lending agencies refused to make mortgages on more than 60 per cent of the cost of a home, and limited the period of amortization of their loans to 10 years. Home mortgage insurance under Part II of NHA radically changed this picture.

The National Housing Act insurance was made available for approved lending institutions against losses on mortgages on specified types of residential property, the principal obligation being set as not to exceed 80 per cent of the appraised value of the property, with a maximum of $16,000. A maturity up to 20 years was allowed, and the mortgage was required to contain complete amortization provisions requiring periodic (monthly) payments by the mortgagor not in excess of his reasonable ability to pay. Each instalment paid by the borrower to the lending institution included, besides part of the principal, (*a*) interest not exceeding 5 per cent per annum on the amount of the principal obligation outstanding at any time, and (*b*) a mortgage insurance premium charge (determined by the risk involved, and limited to not less than ½ of 1 per cent or not more than 1 per cent of the original face value of the mortgage).[1] Provision was also made for the instalment of such initial service charges and appraisal and other fees as the Administrator should approve. In July, 1941, the maximum interest rate allowed was set at 4½ per cent per annum.

A Mutual Mortgage Insurance Fund of $10,000,000 was set up, to be used as a revolving fund for carrying out the provisions of Title II. Fees and insurance premiums received are deposited in the fund. Moneys in the fund not needed for the current operations of the Administration must be deposited with the United States Treasury or invested in bonds or other obligations of the United States. The aggregate principal obligation of all insured mortgages was limited to $1,000,000,000 for liens against existing structures and $1,000,000,000 for liens on new structures.

When an insured home mortgage is foreclosed, the mortgagee, on conveyance to the Federal Housing Administrator of title to the property, is entitled to receive Mutual Mortgage Insurance Fund debentures having a face value equal to the unpaid balance of the mortgage, and a certificate of claim covering all amounts due under the mortgage which are not covered by the debentures, including necessary expenses incurred in foreclosing the mortgage and conveying the property. The debentures bear interest at a rate determined by the Administrator but not exceeding 3 per cent per annum; they mature three years after the maturity date of the mortgage, and are subject to the same federal, state and local taxes as the mortgage in exchange for which they were issued.

Amendments to the National Housing Act were passed in 1938 for the purpose of further encouraging residential building by reducing the initial payment and lowering the interest rate on loans. Later amendments (1941) authorized an increase of the aggregate permissible amount of principal obligations of all mortgages insured and outstanding to $4,000,000,000 and $5,000,000,000 respectively.

[1] In the original act, mortgage is defined as "a first mortgage on real estate in fee simple or on a leasehold . . . upon which there is located a dwelling for not more than four families which is used in whole or in part for residential purposes, irrespective of whether such dwelling has a party wall or is otherwise physically connected with another dwelling."

To carry out the Mutual Mortgage Insurance Plan (Title II) a nation-wide organization was set up for underwriting mortgages submitted by approved lending institutions, and a system of mortgage risk rating was devised. The Eighth Annual Report of the Federal Housing Administration points out that trend data on home mortgages insured under Title II show "steady progress toward lower cost housing, lower monthly financing costs for home purchases under the FHA plan, and a consequent broader use of FHA home financing by families of modest income". The median income of families purchasing new homes financed by Title II insured mortgages in 1941 was $2,250, the lowest on record. The Report also notes that since July 1, 1940, all administrative expenses of the Federal Housing Administration have been met by allocation from income of the various insurance funds". Up to the end of 1941 the Federal Housing Administration had acquired under the terms of insurance title to 3,355 small homes, and had issued debentures and cash adjustments therefor in the amount of $16,500,000. The number of these properties which had been sold (by the end of 1941) was only 2,959, at an estimated charge to the fund of $1,749,767, or an average of $591 per case.

(*b*) *Rental Housing.* A special section (207) of Title II of the National Housing Act gave the Federal Housing Administrator authority to insure first mortgages on housing projects held by Federal, State or municipal agencies, or private limited-dividend corporations "formed for the purpose of providing housing for persons of low income". In the case of privately-owned properties, rents, charges, capital structures, rate of return and methods of operation were subject to regulation or restriction by law or by the Administrator. The mortgages need not conform to the eligibility requirements of home mortgage properties but must be economically sound, and satisfactory to the Administrator. The insurance with respect to any project was limited to $10,000,000.

Mortgage insurance was thus applied for the first time as a device to encourage the investment of private capital in large scale rental projects, and in recognition of the need to promote the supply of housing for families not desiring or not able to finance home ownership.

In the National Housing Act amendments of February, 1938, the low-rental project section (207) was expanded and many of the practices which had been established under Title II were incorporated. To the approved institutions were added private corporations and associations, co-operative societies which are legal agents of owner-occupants, and trusts formed for the purpose of rehabilitating slum areas, or providing housing for rent or sale, which are regulated or restricted by the Administrator until termination of all insurance obligations so as to provide reasonable rentals to tenants and a reasonable return on the investment. A Housing Insurance Fund of $1,000,000 was initially created for the purpose of carrying out the provisions of the rental housing insurance plan as distinct from the mutual mortgage insurance plan.

The principal amount of an insurable mortgage was reduced by the 1938 amendments to $5,000,000 and a maximum loan-to-valuation ratio was set at 80 per cent of the estimated value of the improved property, with a maximum limit of $1,350 on the amount of mortgage per room. In addition to interest, the Administrator was authorized to collect an insurance premium charge (payable annually in advance by the mortgagee), and fees to cover appraisal and inspection charges. These were not to exceed ½ of 1 per cent of the original principal.

Other and more substantial changes were made by amendments in 1939. Existing eligibility requirements for mortgages were supplemented with the provision that the amount of an insurable mortgage shall not exceed the estimated cost of the completed physical improvements.[1]

[1] These are defined as exclusive of the land itself and of the public utilities and streets, of taxes, interest, and insurance during construction, of organization and legal expenses, and miscellaneous charges during or incidental to construction.

A new section stipulated that on projects accepted for mortgage insurance under section 207 the builder must certify that labourers and mechanics employed have been paid not less than the local prevailing wages as determined by the Secretary of Labour. Most important of all, the maximum rate of interest was reduced from 5 to $4\frac{1}{2}$ per cent per annum on the amount of the principal obligation outstanding at any time.

Under the low-rental sections of Title II the FHA had insured, by the end of 1941, mortgages totalling just short of $140,000,000 and covering 344 rental and release clause projects. These projects provided a total of 36,784 dwelling units.

II. Public or Low-Rent Housing

Until 1933 government housing assistance took the form of loan guarantees to encourage investment in home building by private lending agencies. The first move towards public housing was a by-product of government efforts to maintain and promote economic stability and to relieve unemployment. The Reconstruction Finance Corporation, established in 1932, was authorized among its other purposes to promote residential construction by making self-liquidating loans to limited-dividend corporations to finance housing projects which were subject to state or municipal control. The first RFC loan was made in 1933 to finance the construction of Knickerbocker Village in New York, under the authority of the New York State Housing Board. This project was built at a cost of $9,500,000; it provides 1,593 dwelling units, with monthly rentals averaging $12.50 per room. Although this was not public housing, out and out, it was an intermediate step in that direction.

1. *The Housing Division of PWA*

The first subsidized low-rent housing program proper in the United States, was undertaken by the Housing Division of the Federal Emergency Administration of Public Works, established in 1933. This was set up by Title II of the National Industrial Recovery Act (NRA); it became, after 1939, the Public Works Administration, or PWA. The Division was authorized to "construct, reconstruct, alter or repair under public regulation or control, low-cost housing and slum clearance projects". This was still one step away from low-income housing provision pure and simple. It was primarily a public works proposition to provide relief and employment; housing needs were a secondary, though recognized, factor.

Initially it was the policy of the PWA to promote construction of housing projects through private enterprise, by making loans at 4 per cent to limited-dividend corporations on 25 per cent of the project cost, the loans to be amortized in 35 years. Approximately 500 applications for loans under this plan were received, but the PWA granted financial assistance only to 7 limited dividend corporations.

In February, 1934, the policy was changed to one of direct financing and construction of housing projects by the PWA. Fifty-one projects providing approximately 22,000 dwelling units, were completed under this program of direct government financing, and 45 per cent of the cost was written off as a capital subsidy. The important thing about this venture was that it paved the way for public housing by bringing the problem forward and by encouraging the States to pass the enabling legislation permitting them to participate. The first state public housing act was passed in Ohio in December, 1933; New York passed its Housing Authorities Law early in 1934; and other states gradually followed.

Taxation and Rents. In 1936, the Federal Emergency Administrator of Public Works was authorized[1] to make agreements with States or their political

[1] By the George-Healey Act, Public Act 837, 74th Congress.

subdivisions for payment by the federal government of sums in lieu of taxes on PWA housing projects. The amount of the payments was to be based on the cost of services supplied to the projects, and was to be made out of operating income.

The Act also authorized the Administrator to fix rentals in any PWA project so as to cover all necessary administrative expenses of the project and an amount sufficient to repay within 60 years at least 55 per cent of the initial cost with interest. Tenants for the projects were to be selected from the low-income groups, and no family could be admitted whose aggregate income exceeded five times the rental charged. The average monthly shelter rent plus water in occupied projects was $20.32 per dwelling unit at June 30, 1938, and the average family income of tenants was $1,245.

The PWA Housing Division faced a great many difficulties which were mostly due to inexperience, but its pioneering in the field of public housing cleared the way for the decentralized system now in operation under the United States Housing Act of 1937. Transfer was made of the seven limited-dividend projects aided under the PWA and of fifty-one public housing projects (of which 18 were occupied) to the United States Housing Authority on November 1, 1937.

2. *The U.S. Housing Act*

The first United States act to provide for public housing as a welfare project was passed in 1937. Known widely as the Wagner-Steagall Act, its declared function was "to promote the general welfare of the nation by employing its funds and credit . . . . to assist the several states and their political subdivisions to alleviate present and recurring unemployment, and to remedy the unsafe and insanitary housing conditions and the acute shortage of decent, safe and sanitary dwellings for families of low incomes, in rural and urban communities, that are injurious to the health, safety, and morals of the citizens of the Nations". Since most of the United States experience in public housing has come from the operation of this Act, it merits review here in some detail.

U.S. Housing Authority. The Act set up, in the Department of the Interior, the United States Housing Authority, a corporate body of perpetual duration, headed by an administrator. It was placed under the Federal Works Agency two years later. In February, 1942, when all housing bodies were co-ordinated under the National Housing Agency (see above) the powers and functions of the USHA were transferred to the Federal Public Housing Authority.

The Housing Authority makes loans to public housing agencies for low-rent housing or slum clearance projects, and also annual contributions or lump-sum grants to maintain the low-rent character of these projects. Public housing agencies are defined as "any State, county, municipality or other governmental entity or public body which is authorized to engage in the development or administsration of low-rent housing or slum clearance". Low-rent housing is defined as "decent, safe and sanitary dwellings within the financial reach of families of low income. The dwellings shall be available only to families whose net income does not exceed 5 times the rental (including all utilities) except in the case of families with 3 or more minor dependents the ratio shall not exceed six to one".

The FPHA has a capital stock of $1,000,000 owned by the government, and authority to issue notes or bonds in an amount not to exceed $600,000,000. The interest rate on its bonds cannot exceed 4 per cent or the maturity date 60 years. These obligations are in effect United States obligations and are free from local, state or federal taxes, except surtaxes, estate duties, inheritance and gift taxes.

Enabling Legislation by States. Inasmuch as the municipal governments, which establish directly or indirectly most of the agencies, do not generally have the power to engage in housing projects, it has been necessary for the state

governments to pass acts giving the municipal governments the necessary authority. By 1943, enabling legislation had been passed by 42 states authorizing the establishment of local housing agencies, and 633 public housing agencies, or "local authorities", were in operation. In three of the 42 states, the enabling legislation permits local housing authorities to be established solely for the purpose of providing housing for war workers; in the remainder the enabling legislation specifies the purpose of the local housing authorities as being to develop and administer slum clearance and low-rent housing projects for families of low income. In order to meet special wartime shortages, most of the states have enacted supplementary legislation authorizing local housing authorities to exercise all of their powers to develop and administer housing projects for war workers or act as agents for the Federal Government in developing and administering such projects.

Local Housing Authorities. A local housing authority typically consists of five commissioners appointed by the mayor of the city or other municipality, or by the governing body of the county, as the case may be. In a number of states, state officers or boards have some jurisdiction with respect to the housing authority, but in only a few is such jurisdiction sufficiently broad to include approval of housing projects or the appointment of commissioners of the authority. The enabling housing legislation in each state permits authorities to be established for cities, except that in the state of New York each housing authority must be created by a special act of the Legislature. Other municipalities, such as towns and villages, are sometimes authorized to establish authorities. In 29 states, counties may establish housing authorities. Another arrangement permits a group of municipalities to establish a single authority variously termed a consolidated housing authority and a regional housing authority. It is important to add that in all states having low-rent housing and slum clearance legislation, local authorities are given the necessary authorization to condemn property for demolition.

Loan Procedure. If a local agency decides to undertake a low-rent or slum clearance project, it first makes a tentative survey of needs, locations and costs. If these points are settled satisfactorily, complete plans are then drawn up and presented to the FPHA. If the plan and the loan contract are approved, the FPHA is in a position to buy up to 90 per cent of the bonds issued by the local agency to finance its activities and the project. The other 10 per cent must be sold elsewhere: to banks, insurance companies and other investors. Sometimes this has proved impossible and the project has collapsed. On the other hand, and more frequently, very much more than 10 per cent has been forthcoming from local sources. The FPHA takes the bonds on a $2\frac{1}{2}$ to $3\frac{1}{2}$ per cent basis, (by law, at least $\frac{1}{2}$ per cent and not more than one per cent over the going rate on United States government obligations of more than 10-year maturity, at the time the arrangement is made). Experience so far has proved this to be an average of less than 3 per cent.[1] The bonds may mature for periods varying up to 60 years.

Temporary Financing Measures. In 1939 temporary financing was introduced under the public housing program in order to draw private capital into the housing field particularly during the construction period. The procedure is that the local authorities file requisitions with the FPHA indicating what funds are needed for construction over a particular period. The FPHA then authorizes an appropriate Federal Reserve Bank to pay the local authority an advance on account of the loan on a specified future date. On the basis of this authorization the local authorities issue short-term notes to public bidders,

[1] The Federal Public Housing Administration is itself able to borrow at about $1\frac{3}{8}$ per cent, so that its own operations are economized by the banking revenue received on its municipal loans.

offering the lowest possible rate of interest (often as low as ½ or 1 per cent). When these notes mature, the Federal Reserve Bank makes the advance authorized and the local authority uses the advance to retire the notes outstanding. These notes are exempt from federal taxation and in most states from state taxation.

Since the rate of interest the FPHA is obliged by law to charge would, on the average, have amounted to considerably more than the rate obtained from private investors, substantial saving has been effected in the development cost of projects. As a rule permanent financing takes place when the projects are 75 to 90 per cent complete. Local authorities issue long-term bonds which are sold at prices comparable to those paid on high-grade general-obligation municipal securities.

Annual Grants or Subsidies. The function of the FPHA is not limited to lending the capital required, for even with the lower interest rates effected it would not be possible to provide the level of rents required for a low-rent project. Accordingly the FPHA has authority to make annual grants or subsidies in order to maintain the low-rent character of the project. These annual contributions, which are subject to review, are made to the local authority only when certain conditions are fulfilled; the most important of these are:—

1. The state, city, or county in which the project is located must contribute, in tax remissions or cash, 20 per cent of the annual contributions made by the FPHA.

2. Unsafe or insanitary dwellings situated in the locality, equal to the number of newly constructed dwellings, must be demolished before any contributions are received for the new project, except in areas where the housing shortage is so acute as to cause overcrowding.

3. The annual contributions are limited to the amount and period necessary to maintain the low-rent character of the project, and must not exceed a sum equal to the annual yield at the going federal rate of interest plus 1 per cent on the cost of the project involved. This has meant maxima of 3 to 3¾ per cent, but in practice an average below 3 per cent, and even 2¼-2½ per cent in particular instances.

4. The contributions must be used first to apply toward any payment of interest or principal on any loan due to the FPHA from the local agency.

5. If the low-rent character of the project involved is not maintained, the FPHA may reduce or terminate annual contributions.

6. No loan, capital grant, or annual contribution may be made for any project costing more than $4,000 per family unit or $1,000 per room. In cities exceeding 500,000, the limits are $5,000 per family unit and $1,250 per room if these higher costs are justified.

7. Not more than ten per cent of the federal funds provided may be spent in one state.

The Act also provides that, if it is regarded as more suitable and satisfactory for the particular condition, a capital grant not to exceed 25 per cent of the cost of the project may be made in lieu of the annual contribution. For such a grant, the same general conditions prevail and would have to be met. Actually no capital grants have yet been made; the annual grant method is invariably preferred.

The annual contributions, of course, assist the local agency to make up the deficit between the cost of operating the project (including debt service, maintenance costs, insurance, etc.) and the income derived from the low rentals. Some measure of this is given by the fact that, on the average, the USHA grants

represent about 30 per cent of the total income of the low-rent projects. About 15 per cent of the income comes from local government through cost services or tax exemptions.

Tax Exemption. All property owned by the FPHA is exempt from federal, state and local taxation. The FPHA is authorized, however, to pay annual sums in lieu of taxes to any state or subdivision with respect to any real property owned by it; payments cannot exceed the taxes which would have been paid on non-tax-exempt property. Forty-nine projects transferred from the PWA and one or two directly constructed war housing projects at present comprise the only real property of the FPHA to which these provisions apply.

The matter of the municipal taxes on the real property of the local agency has been a source of keen discussion in the United States. In some cases state enabling legislation limits the right of the municipality to levy. Limiting provisions run from the amount of the existing tax prior to acquisition by the local authority, to full taxes. But the real limitation on local tax payments is made by the FPHA itself. The Act makes no reference to local taxes, but the regulations made by the Administration under the Act provide that "projects shall not be approved if the contemplated payments exceed 5 per cent of the shelter rents received".[1] The amounts so received by the local government are thus but a fraction of the full taxes which would have been paid by a private owner. This situation has caused considerable dissatisfaction on the part of some municipal authorities.

The FPHA administration argues first, that the local tax exemption is necessary to preserve the low-rent character of the project; and, second, that since the project is essentially a slum clearance or replacement plan, the local government gains financially by lower costs of police and fire protection, social services, etc. The FPHA has been able to maintain its policy on local taxes, but the trend of United States war housing legislation towards full tax payment is likely to weaken its position.[2]

Operations. By the end of 1942, 111,333 family dwelling units had been completed for occupancy under the FPHA, of which 103,085 were urban dwellings, 703 rural and 7,545 war converted. In accordance with the requirements of the Act 66,057 substandard dwellings had been eliminated by January 30, 1941. This represented 66·9 per cent of the new dwelling units completed at that date. After 1942 the public housing program under the United States Housing Act was restricted to the development and advancement of war housing.

During the fiscal year 1941-42, the net construction cost per dwelling unit, including the cost of plumbing, heating, and electrical installation, was $2,683. With the cost of dwelling equipment, architect fees, local administrative expenses, and carrying and contingent charges, the cost per dwelling unit is $3,189. The overall cost including land and its acquisition expenses and dwelling facilities amounts to $4,055.

The relative importance of funds advanced to local authorities by FPHA under loan contracts, and the outstanding borrowings by local authorities from sources other than the FPHA, is indicated by the figures in Table 1. Special contributions on an annual basis have also been paid to local authorities since 1941; in the fiscal year 1941 these amounted to $4,764,000 and in 1942 totalled $9,926,000.

Since the loans made by the FPHA are repayable with interest at a rate higher than that on which the Authority borrows funds, they are a source of revenue, and in the fiscal year 1942 the FPHA derived from this source a net profit of $5,700,651. The cost of the public housing program lies in the adminis-

[1] United States Housing Authority, Bulletin No. 6 on Policy and Procedure, revised December 1938.

[2] For a critical review, see *Tax Exemptions*, by Edwin H. Spengler, Brooklyn College, N.Y. 1939.

trative expense incurred and in the amount of annual contributions paid. Administrative expenses of the planning, construction and management of the FPHA public housing program ranged from $1,205,292 for the fiscal year 1928 to $4,331,257 for the fiscal year 1942 and totalled for the five-year period $17,320,777.

TABLE 8.—OUTSTANDING FUNDS ADVANCED BY THE FPHA TO LOCAL AUTHORITIES FOR FPHA-AIDED PROJECTS

Date	Outstanding funds advanced by FPHA under loan contracts	Outstanding borrowings by Local Authorities from other sources [1]	
		Temporary	Permanent
	$000	$000	$000
At Dec. 31, 1938	22,064	—	—
At Dec. 31, 1939	113,483	—	—
At June 30, 1940	78,205	240,466	—
At June 30, 1941	309,293	211,636	37,670
At June 30, 1942 [2]	379,385	190,694	72,716

Source: United States Housing Authority and Federal Public Housing Authority, *Annual Reports*, 1938-1942.

[1] Although borrowed from sources other than the FPHA, the FPHA has agreements with local authorities to loan them funds in an amount sufficient to pay these notes and interest at maturity.

[2] Low-rent and war converted.

Rent Levels. Since all families of low income in need of rehousing cannot afford to pay the same amount of rent, "graded" rents have been introduced in a number of public housing projects. The principle of this type of rent is that it varies according to family size and income as well as according to the type of accommodation. The size of the family determines how many bedrooms will be needed and the family's income determines how it will be classed, the grades carrying different rent levels. Many families are thus admitted who would ordinarily be excluded under a uniform subsidy system. Rents are adjusted annually by the local authorities in accordance with statements of total income which each tenant is required to submit. During the fiscal year 1941, when the system first gained attention, the percentage of developments with approved rent schedules on a graded basis increased from 6 to 62, and the proportion has continued to rise. A typical schedule from the 1941 Annual Report of the USHA is reproduced below, and other examples are given in Chapter 9.

Grade and Size	Maximum annual family income	Gross monthly rent per unit [1]
Grade A	$	$
1 bedroom unit	500	13.00
2 bedroom unit	600	13.75
3 bedroom unit	700	14.50
4 bedroom unit	800	15.00
Grade B		
1 bedroom unit	700	16.25
2 bedroom unit	800	17.00
3 bedroom unit	900	17.75
4 bedroom unit	1,000	18.25
Grade C		
1 bedroom unit	850	18.75
2 bedroom unit	1,000	19.75
3 bedroom unit	1,150	20.75
4 bedroom unit	1,300	21.25

[1] Shelter plus utilities

The average rent in United States projects has been about $17-$18; but besides making allowance for somewhat higher wage and living costs as compared with Canada, the considerable range between particular projects should be noted. As at June 30, 1941, the national average of $17.98 represented a range from $9 in a project in Athens Georgia, to $26.94 in a Detroit project. These rents also include utilities. The average family income of the tenants at the end of the fiscal year 1941 was $832, ranging from $407 to $1,190.

Total units built. As the result of enquiries addressed to several United States housing authorities, it is possible to assemble the principal totals of houses built with public assistance of all kinds. They divide broadly into two groups: (*a*) houses built with mortgages issued under the National Housing Act and (b) houses built completely by public funds (predominantly low rental projects).

The most authoritative estimates for the inter-war period (incorporating some recent revisions) are assembled in Table 3 of Chapter 1. This indicates that in the pre-war period during which public housing legislation was important, 1935-1939, the additions to housing supply totalled 2,112,000 units. (These figures exclude farm housing.) During the same period nearly half a million units, or slightly less than one-quarter of the total, were built with public assistance of one kind or another as shown below:—

Year	Estimated Total Construction	Publicly assisted ownership [1]	Direct public housing [1]	Publicly assisted ownership and direct public housing
	units	units	units	units
1935	309,000	14,000	5,000	19,000
1936	347,000	49,000	15,000	64,000
1937	403,000	60,000	4,000	64,000
1938	466,000	119,000	7,000	126,000
1939	587,000	158,000	57,000	215,000
Total	2,112,000	400,000	88,000	488,000

[1] Rounded to nearest thousand.

It is important to note that nearly half of the total number of publicly assisted homes and those built directly by public authorities were undertaken in the last year of the five-year period under review. In 1939 the number of assisted units numbered 215,000 or 38 per cent of the total of 587,000. For public (low-rent) housing additional information is available on building completed since the inception of the program up to the fall of 1941 which is generally considered the end of the period of low-rent house programs proper. This indicates a total of about 180,000 units. Public housing schemes in other words had just attained a high level of activity when war needs intervened. On the whole it can be said that the need for low-rental housing projects had finally found general recognition in the United States and had it not been for the war, this type of housing scheme would have assumed a new role in the total. The point is further illustrated by the fact that in 1939, when housing projects undertaken by many local authorities were beginning to bear fruit, low-rental developments contributed only about 10 per cent to the total house-building activity. Although work on some defence housing projects was under way before Pearl Harbour (about 36,000 units up to the fall of 1941) they did not achieve any significance until late in 1941 when, with the entry of the United States into the war, plans for low-rental housing projects were adapted for wartime purposes and all efforts were concentrated on meeting the pressing needs of housing for war workers in new and old industrial districts.

III. Rural Housing

Assisted rural housing in the United States has been extensively developed as part of the agricultural recovery program, which also dates from the depression years. The Farm Credit Administration, created in 1933, provided a co-ordinated system of farm credit whereby farmers can obtain both short and long term loans. For purposes of this legislation the United States was divided into twelve farm credit districts each having a Federal Loan Bank, a Federal Intermediate Credit Bank, a Bank for Co-operatives, and Production Credit Corporations and Associations set up to provide credit for all types of farm operations. In addition the National Housing Act of 1934 amended the Farm Credit Act by providing that Production Credit Associations could make loans to farmers to finance home alterations, repairs and improvements, and could avail themselves of FHA property improvement insurance under Title I.

The Resettlement Administration. Federal sponsorship of the construction of low-cost rural housing began with the building of subsistence homesteads under the National Industrial Recovery Act of 1933. These projects were undertaken, not as a measure to improve farm housing as such, but in the belief that many urban problems would be solved by a "back to the land" movement. It was thought that with a house and a few acres of land, an industrial worker could provide enough food for his own maintenance and that of his family during periods of depression. With this purpose in mind homestead projects were undertaken in 1933 by the Subsistence Homesteads Division of the Public Works Administration and 36 projects involving 3,496 dwelling units were initiated. Co-operative communities, including farms, part-time farms, garden communities and migratory camps were also initiated by the Federal Emergency Relief Administration.

The projects started by these two agencies were taken over in 1935 by the Resettlement Administration which was established in that year to co-ordinate national measures for rehabilitation, conservation and land utilization. In the following year, when the Resettlement Administration was transferred to the Department of Agriculture (and its name changed to Farm Security Administration) a total of 13,566 dwelling units had been initiated by the Resettlement Administration and the groups consolidated with it. Of the new units 2,750 were in three "Greenbelt" communities in the suburbs of metropolitan centres and were the first in which dwelling units were rented instead of sold on a rental basis. Many of the projects were part of a broader program of rehabilitating rural families which had been stranded in outlying areas where they could not support themselves.

Farm Security Administration. Meanwhile, the plight of small and tenant farmers was receiving increased attention. Surveys in 1934 and 1936 revealed overcrowding, poor housing, a low level of health, and extremely low incomes among a large proportion of the farm population.[1] In 1936 more than 1,690,000 farm families had average incomes of less than $500 a year. Nearly half of these had average incomes of less than $250 a year, including all the products they raised for home use. Farm rehabilitation measures were imperative, and among them, the need for improved housing was recognized.

The Farm Security Administration, in the course of its rehabilitation program, was therefore obliged to pioneer in the field of farm housing. Low-cost housing methods were worked out on its homestead and other projects, and experiments with materials and techniques (including prefabrication) were carried on in order to develop comfortable and durable houses suitable for small farmers. The experimentation was begun by direct action, the federal govern-

[1] Report of the Administrator of the Farm Security Administration, 1940, p. 3, referring to the National Resources Committee Survey of 1936 and the Survey of Farm Housing made in 1934 by the Bureau of Home Economics of the Department of Agriculture

ment building the houses through the Construction Division of the Farm Security Administration. After a while (in 1938), all Farm Security Administration construction was turned over to private contractors, who gradually became interested in the projects, and in many instances found in the plans, designs and experience in materials which had been built up, valuable guides for the production of practical, low-cost homes.

Up to December 31, 1939, the FSA had completed 2,133 suburban homes in community projects; 12,315 new farm homes; 4,543 repaired farm homes at homestead projects on tenant-purchase farms, and 353 labour homes at the migrant camps. The majority of the farm homes erected under FSA in 1939-40 were located on farms that had been bought by tenant-purchase borrowers under the Bankhead-Jones Farm Tenant Act of 1937. This Act enabled the FSA to make loans to a limited number of tenant sharecroppers and farm labourers for the purchase of farms of their own.

The half-million migrant farm families forced off the land by drought, soil erosion and general economic depression constituted a special problem. The vast numbers who trekked with their families from place to place harvesting the great specialty crops of the Western areas had to be provided with housing. Migrant camps, both permanent and mobile, providing the minimum of shelter and sanitary facilities, were erected under FSA for these families. At the end of January 1942, 95 permanent and mobile camps had been set up in states of the South and West, and 32 were planned or under construction. It was estimated that the completed program would provide shelter for 16,000 migrant families at one time.

The experience of the Farm Security Administration in low-cost construction and repairs proved of special value to the Government when it became necessary to initiate housing for workers in war industries. Several projects for both town and farm units were allocated to the FSA. However, in February 1942 all FSA housing projects (including war housing projects) for families "not deriving their principal income from operating or working upon a farm," were transferred to the Federal Public Housing Authority. These included the 3 Greenbelt towns, and 14 subsistence homestead projects providing 1,947 units. The FPHA also took over the obligations covering 17 additional subsistence homestead projects which had been sold by the FSA to the occupants.

The Federal Public Housing Authority (Rural Projects). A survey of farm housing made in 1934 estimated that about 60 per cent of all American farm families were living under substandard housing conditions. To assist in remedying this situation the United States Housing Act of 1937 provided for Federal aid to public housing agencies in "rural or urban communities". At the time the Act was passed, there was only one local authority in existence which represented a rural community. As more county authorities were created the rural public housing program gradually took shape and by June 30, 1940, six projects (providing 1,300 dwelling units) had been undertaken by local authorities with the co-operation of the USHA and the Department of Agriculture. Enabling legislation in 29 states now permits county housing authorities to be established, and in 12 states groups of counties may co-operate in setting up a single "regional" authority.

The FPHA farm housing program follows with some minor modification the procedure established in the urban program. County authorities are set up to design, build and operate the projects. They acquire an acre plot on a farm by gift or purchase, build a house on it, and rent the house to the farmer. The FPHA makes a loan to the authority to cover up to 90 per cent of the cost, and after the house is complete it makes annual contributions toward operating expenses in order to permit rentals as low as $4 or $5 per month. The local government also makes contributions toward low rents (generally in the form of tax exemption) which must equal at least 20 per cent of the FPHA contributions. Building contracts usually cover about 25 units each.

The Farm Security Administration of the Department of Agriculture co-operates with the FPHA in the rural public housing program. Before any project is approved, the FSA must determine that the farm is economically sound and it must also obtain an agreement from the farmer to use approved methods of agriculture. As in urban projects aided by the FPHA, tenancy is restricted to families having incomes not exceeding five times the rental; income includes "net profit from sales of farm produce, plus the value of products raised on the farm and consumed in the home". Tenants (who may be small farm owners, tenant farmers, sharecroppers or rural wage workers) are selected with the assistance of the FSA and are made responsible for maintenance, for which they are allowed credit against the gross rent of the dwelling.

By June 30, 1941, the USHA had lent or earmarked $13,839,000 to county and regional authorities, and had made loan contracts totalling $5,342,000 to assist in financing 32 rural housing projects with 2,820 dwelling units. The average estimated overall cost was $2,118 per unit, and the average estimated gross annual shelter rent was $84.58 per unit, or only a little over $7 a month.

It is probably too soon to pass judgment on the success or failure of these plans, but the attempt which has been made to meet rural housing needs and at the same time keep outside the range of farm credit or mortgages warrants careful observation. The Administration does not regard the experience as an unqualified success, and is the first to admit that the provision of rural housing at low cost is one of the most difficult branches of all housing.[1]

IV. War Housing

As in Canada, wartime needs gave a new stimulus and a new direction to housing policy, which will not be without some results in post-war developments later. In the United States the provision of housing for workers in essential war industries and for enlisted men and civilian personnel of the armed forces was authorized both by amendments of existing acts and by new legislation. As at mid-1943, 684,337 dwelling units had been allotted under the various war housing acts. A total of 427,638 units had been completed, and 188,691 were under contract. The federal housing agencies which are authorized under the various Acts to carry out the public war housing program are permitted to reassign the construction work within the limits of their authority, and eight Federal and one state construction agencies have participated.

United States Housing Act (Defence Amendment). The first legislation, under this title was passed in June, 1940, to authorize the United States Housing Authority (Federal Public Housing Authority since 1942) to undertake defence housing projects in co-operation with the War and Navy Departments. No project can be undertaken until President in order approves it and determines that an acute shortage of housing in the locality involved impedes the national defence program. Projects may be undertaken by the local authorities with FPHA assistance, or they may be developed by the FPHA itself in areas where local authorities are unable to provide adequate war housing. A third type of war housing project permitted under the Act is the Army or Navy leased project, for navy or military centres; these are built either by the FPHA, or from army or navy sources with technical assistance supplied by the FPHA. President in order decides whether the Navy or War Department of the FPHA is better suited to provide dwellings of this type.[2]

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[1] A Committee of the United States Department of Agriculture has outlined some principles of rural housing which it considers basic. Among these, the Committee recommends the use of subsidy for minimum standard housing only; recognition of the fact that farm housing is a part of the problem of tenure, farm management, and adjustments in land use; encouragement of the family type of farm; grouping of individual homes wherever possible to achieve economies of construction, water supply, sewage disposal and community facilities; the use of farm families' own labour, and the utilization of local materials. The Committee also recommends that procedures and types of financing should vary with the different groups of farm population, small owners, tenants and labourers. Some of these matters in their Canadian application are considered further in Chapter 10.

[2] U.S. Housing Authority, Bulletin No. 35, *Policies and Procedures for USHA-aided Defence Housing Projects Developed and Constructed by Local Authorities.*

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The provisions of the United States Housing Act of 1937, as amended, apply to the development of defence projects under this Act except for a few modifications. Selection of tenants need not be restricted to those of low income; equivalent elimination of slum housing is not required; FPHA funds may be used to provide 100 per cent of the development cost; the Authority is permitted the use of federal powers to acquire land which it may sell to local authorities; and FPHA funds used for war housing are not included in determining the amounts expended within each State. Existing contracts made under the United States Housing Act may also be revised to provide that slum projects for which funds have been already allocated may be used as war housing.

It has been the policy of the FPHA, as far as possible, to develop war housing through the local authorities rather than undertake the direct construction of projects. It is to be noted also that in general, where it appears that the housing need will be permanent, the FPHA urges that war housing be designed for long life, and planned and located so that it will be of lasting value to American communities and may be used as low-rent housing when the present emergency is past. In comparison with the Canadian situation in this respect, it must be remembered that there has now been developed considerable experience, both local and national, with the construction and operation of low-rental estates.

Another important point is that the Navy or War Department or the FPHA may agree to pay annual sums in lieu of taxes to any State or political subdivision thereof for any real property owned by it under Title II of the Act, provided the amounts do not exceed the taxes that would ordinarily be levied on such property if privately owned.

As mentioned elsewhere, in 1942 it was provided by an amendment that a project developed or assisted under Title II may not cost more than $4,000 per family dwelling unit or more than $1,000 per room except in any city of over 500,000 population where, if higher costs are justified, a family unit may cost not more than $5,000 and a room not more than $1,250. The amendment also provides that the wages prevailing in the community are to be paid on all contracts for war projects.

The Army-Navy Appropriation Act. The Army-Navy Appropriation Act of 1940 appropriated $100,000,000 for the use of the War and Navy Departments in the acquisition of necessary land and in building and maintaining family units for rent to military personnel and civilian defence workers. The average unit cost of housing projects was limited to $3,500, including land, utilities and facilities.

The Secretaries of War and the Navy are authorized to use rentals collected from each housing project for the management and maintenance of the housing units involved and to set up special reserve accounts for the amortization of the cost of the project. In designing, constructing, or operating housing projects built under this Act the Secretaries of War and the Navy are empowered to utilize other agencies if necessary.

The Lanham Act. The largest share of the public war housing program has been undertaken under the Lanham Act of October, 1940. An appropriation of $1,200,000,000 for defence and $150,000,000 for defence public works have been made, to be used for providing housing for rent to persons engaged in national defence activities in areas designated as places where an acute shortage of housing exists. The administration was authorized to work through other federal agencies and local public agencies in developing projects under the

Lanham Act, and any federal agency having funds for the provision of war housing may transfer these funds to the National Housing Administrator to be used under the conditions of the Act.

The average cost per permanent family dwelling unit built under this Act must not exceed $3,750 with a maximum of $4,500 for any single unit in certain areas. The aggregate cost of community facilities may not exceed 3 per cent of the total cost of all the projects. Labour is to be paid the wage prevailing in the community on the basis of an eight-hour day with time-and-a-half for overtime. Fair rentals are fixed by the Administrator, and money derived from rental or operation of property acquired or constructed under the Act must be returned to the appropriation to be used for expenses of maintenance and operation.

Provisions concerning payments in lieu of taxes to states or local governments were originally the same in the Lanham Act as in the United States Housing Act and previous defence legislation. The Administrator was authorized to make agreements to pay, in lieu of taxes, annual sums not exceeding the annual tax which would have been paid had the property not been tax exempt. The Lanham Act amendments of January, 1942, however, changed this policy and required the administrator to pay from rentals annual sums (in lieu of taxes) which would approximate the annual tax ordinarily levied on the property, with an appropriate allowance for any government expenditure on utilities to service the property.

Other Legislation. In 1941 the Temporary Shelter Act was passed to authorize the provision of temporary shelter in defence areas where immediate housing need could not be met through private enterprise or under existing legislation. The President has authorized utilization of local public agencies by the National Housing Administrator in developing and administering projects under this Act in the same manner as under the Lanham Act.

Finally, an amendment of the National Housing Act insurance provisions was made in 1941 to encourage the construction of war housing units by private capital. Insurance for mortgages was provided for homes and housing projects in defence areas; and since defence workers are generally renters, not owners, the restriction that insured properties must be owner occupied was abolished.

PART II.—MEASUREMENTS

CHAPTER

4. Dimensions of Urban Housing.
5. Incomes, Rentals and Costs of Ownership.
6. Post-War Housing Needs.

CHAPTER 4

DIMENSIONS OF URBAN HOUSING

The analysis of housing problems in Canada is necessarily related to the regional distribution of the Canadian population and must have reference also to the accelerating process of urbanization which has characterized Canadian population growth since the beginning of the century. The Canada of to-day is definitely more urban than rural, more a nation of city and town dwellers than of farmers, no matter how "urban" is defined. Accepting the term as it is most frequently used for census purposes, the urban population of the Dominion passed the half-way mark some time during the last war, and since then figures for both 1931 and 1941 have placed the urban proportion at around fifty-five per cent. It is reasonable, therefore, to give first attention in this report to urban housing problems, although this is not to deny the importance of housing and planning measures for the rural and agricultural areas of Canada, which are considered elsewhere.

Urban and city aggregates are so commonly referred to in housing discussions without benefit of definition, however, that a few preliminary measurements will be helpful. For Canadian purposes, housing policy should be considered separately for three fairly well-defined divisions of the country:—

(*a*) The largest cities or metropolitan areas. These may be considered as either (i) the largest metropolitan centres, including their satellite communities, or (ii) these aggregates in addition to other large cities without satellite communities, defined as those with population of 30,000 and over;

(*b*) The smaller towns; or cities, towns and incorporated municipalities with population of less than 30,000;

(*c*) Farm areas.

A fourth division is neither so well recognized nor so well-defined as the other three groups but is important in Canada. This is the area, or rather set of areas, which for census purposes are described as the "non-farm rural" group. Actually this includes a varied range of settlements and residential clusters which are of frontier as well as of rural character. Besides many hundreds of small non-incorporated units in the west and villages in other farm areas, it includes fishing and lumbering centres, and construction and mining camps in the various frontier fringes. Certain other areas, namely the non-incorporated parts of metropolitan districts (such as York Township in the Toronto district), are included in the census "non-farm rural" aggregate, but have been excluded where use is made of these figures in the present report, so that it represents, in more homogeneous fashion, the small residential and frontier units of settlement.

These divisions will be kept in view, in the examination of housing needs made in this report, and a few summary tables have been prepared and inserted at appropriate points to keep their dimensions clear. It will be appreciated, of course, that minor modifications of the dividing-lines on statistical grounds are possible; but the main purpose is served if the principal sections of the country to which it is most convenient to refer for housing purposes are shown first in their approximate order of magnitude. To get these on paper it has been necessary to make considerable divergences from standard census tabulation practice at a number of points. To avoid confusion at the outset, a preliminary summary has been compiled (Table 9). This shows the division of the population of Canada into "urban" and "rural" as these terms are defined for statistical purposes, as well as (in the first part of the table) the groupings adopted in the present report. (The component groups, particularly the two important areas

"metropolitan areas" and "major cities", are explained further below.) This obstacle of definition once negotiated, it will be possible to proceed to a review of the principal indices of urban housing conditions and needs, which is the primary purpose of this chapter.

TABLE 9.—PRINCIPAL URBAN AND RURAL AREAS, AS DEFINED FOR CENSUS PURPOSES AND FOR THE PRESENT REPORT, CANADA, 1941

Area	Dwellings	Population
1. "Metropolitan areas"	843,000	3,715,072
2. Other large cities	129,000	552,759
(Subtotal)	(972,000)	(4,267,831)
3. Small cities, towns and incorporated communities	560,000	2,377,914
4. Rural and frontier areas, non-farm	376,000	1,574,533
5. Farm areas	728,000	3,269,435
Urban (Census definition):		
1. "Major cities": cities with population of 30,000 and over	810,300	3,573,500
2. Cities and towns with population between 1,000 and 30,000	521,400	2,279,060
3. Incorporated centres, population under 1,000	105,100	398,059
(Census "urban")	(1,436,800)	(6,250,619)
Rural (Census definition):		
4. Farm areas	729,700	3,276,307
5. Rural non-farm	469,300	1,962,787
(Census "rural")	(1,199,000)	(5,239,094)
Canada	2,635,800	11,489,713

Source: Table prepared by the research staff of the Advisory Committee on Reconstruction, based on Dominion Census, 1941 (Yukon and Northwest Territories excluded). Preliminary figures including some estimates. For qualifications, attached to these figures, see Statistical note C.

N.B.—By courtesy of the Dominion Bureau of Statistics all figures from published sources of 1941 data have been checked and revised, and therefore do not agree in all cases with figures obtainable from preliminary bulletins already issued.

Nature of Urban Units

The urban areas of Canada, as defined in the census, include all incorporated communities ranging from the largest metropolitan cities to the smallest urban village. This mixed total comprises 6,300,000 people and about 1,437,000 dwellings. The remaining population of 5,200,000 live in about 1,200,000 dwellings situated in the areas outside these centres, of which only about sixty per cent is farm area proper. Clearly a considerable variety of housing conditions are included within both the urban and rural boundaries, and it is necessary to distinguish more than one delineation of the urban pattern.

1. The first and most frequently used reference is to all areas which are incorporated as urban units. The test of inclusion for these is not size, but whether they have a charter of municipal incorporation and some of these places are in fact so small as to have less than one thousand inhabitants. For this reason a line is sometimes drawn to exclude centres with population of less than one thousand. This is understandable, and need not occasion any particular difficulty, especially since so many of the smallest incorporated units are likely to be more rural than urban in character. To take one example, the village of Griffin in Saskatchewan is incorporated, and, therefore, counted as urban, though it is in the middle of an extended agricultural area and houses only 139 people. Ignoring for the moment any division connected with the number of persons in the municipality, it will be convenient to refer to this aggregate as the *census urban* population. In 1941, the total was 6,252,416 (including Yukon), or 55 per cent of the total population as recorded at that census date. If the incorporated places with tiny populations (under one thousand) are excluded, the effect is to reduce the forementioned figure by about 6 per

cent. Scattered across the Dominion there are 1,060 of these small incorporated units, accounting in all for about 400,000 people.[1] Actually a few of them are contiguous to some of the largest cities, or satellites not far removed from them—probably not more than 3 per cent of the total number. It would thus be possible to speak of an aggregate census urban population, either of about 5,852,000 which excludes all units below one thousand population, or 5,864,000 which includes only those among the tiny municipalities which are most distinctly urban in the sense which that term is usually meant to convey.

The defect of this type of figure, whether with or without the adjustments mentioned, is that it excludes a number of important communities which are not incorporated as urban entities although they are in fact in all other respects parts of cities. The outstanding examples are in the townships and parts of townships forming the suburbs of Toronto, which have to be classified for census purposes as rural, but which comprise residents (for the most part) whose mode of life and housing needs are essentially urban. York Township alone has a population of over 80,000, among whom industrial workers dominate; and the other districts of Greater Toronto taken with it account for about 200,000. This population alone is clearly enough to import into rural statistics of Ontario, and for that matter of Canada, features which heavily distort their validity as measurements of the rural situation proper.

2. For this reason, but also for a more important one, measurements have been specially compiled for the purpose of this report for the principal cities of the Dominion and the immediately adjacent areas which together make up the "greater" or metropolitan aggregates. For all of these greater cities, the figures of the "fringe" areas have been added, if necessary by special count, whether the areas are in fact incorporated as urban or are situated in some other unit which is in the legal sense still classified as rural.

Inspection of the population statistics for the Dominion shows that there are twelve such cities. Eight of them—Montreal, Toronto, Vancouver, Winnipeg, Ottawa, Quebec, Hamilton and Windsor—clearly belong, and all have more than 100,000 population. The four smaller ones—Halifax, Saint John, London and Victoria—are below the 100,000 mark.

Partly because of their size, but also because of the very nature of town planning and housing needs, there is little question that the greatest proportion of the housing problem is contained within these outstanding metropolitan centres. This will be further demonstrated later. In any case, these twelve communities comprise just short of sixty per cent of the total urban population, or 3,715,072 in all. It will be convenient mostly to refer to the *metropolitan areas*, it being understood that this includes a substantial population outside the borders of the city area proper, which is the nucleus in each case. Some of the principal figures showing the differences between the central city area and the fringe communities, which are of importance both for town planning and for future housing programs, are examined below.

3. In addition to these twelve metropolitan areas, there are other large cities which, because of their particular boundary areas, grow without developing satellite communities. Edmonton, Calgary, Saskatoon and Regina are examples. If the twelve metropolitan areas and the other large cities without satellite communities, of which there are also twelve, are combined the population thus comprised is 4·27 million and the number of dwellings reaches 972,000. These totals are the measure of the larger urban or city area in its widest sense.

4. Another set of urban figures may be employed, and must sometimes be used for lack of compilations on the metropolitan base. This relates to what may be called the *major cities*, those with populations of 30,000 and over. This

[1] The distinction between the incorporated units and other municipalities is important; and should be noted for future reference along with the distinctions between *census urban, metropolitan areas, and major cities,* which are defined in the ensuing text.

will, of course, include all the central units of "greater" cities though not of all their suburbs, and in addition other cities which do not have satellite communities and which are not in the list of the second definition above. It happens that the total of these cities, which number twenty-seven, approaches the metropolitan total in size; and also that the features of the major cities when taken as an aggregate are very similar to those of the metropolitan areas considered as a whole. The major cities, however, include many incomplete communities in that residential sections and, in some cases industrial sections on the outskirts of these cities, are excluded; or they themselves may be part of a larger urban aggregate. Metropolitan areas, on the other hand, are "complete" units including all the industrial, commercial and residential sections which have grown up around the original nucleus, whether or not they form a complete community in the town planner's sense.

To show the relation of these "major cities", and of urban centres of other sizes, to the total urban population of to-day, the accompanying table is useful. Cities with at least 30,000 population but less than 100,000 are fairly numerous, and account for nearly fifteen per cent of the urban population. The larger cities, however, even without their surrounding municipalities, are predominant. On the other hand, the small cities, towns and incorporated communities (below the 10,000 level) are by far the most numerous. They are, of course, scattered across the whole of the Dominion; but taken together they account for nearly thirty per cent of all populations counted for census purposes as urban.

TABLE 10.—DISTRIBUTION OF URBAN UNITS IN CANADA, 1941

Size of urban units — population	Urban units — number	Population — number	Per cent of total urban population
Over 100,000	8	2,645,133	42·3
30,000 — 100,000	19	928,367	14·8
20,000 — 30,000	15	360,393	5·8
10,000 — 20,000	36	499,553	8·0
Under 10,000	1,562	1,818,970	29·1
Total urban	1,640	6,252,416	100·0
Metropolitan communities	12	3,715,072	59·4

Source: Bulletin A-11 and A-13, Dominion Bureau of Statistics, Census, 1941.

Urban Growth

Canada's urban population to-day is more than six and one-quarter millions in size. The importance of urban growth may perhaps best be characterized by a single figure. Since the turn of the century the urban populations of Canada have increased more than three hundred per cent; the rural populations, themselves an increasingly smaller proportion of the total, have increased only somewhat over one hundred and fifty per cent.[1]

It is important to emphasize that this growth has not necessarily been steady or homogeneous throughout the Dominion. The expansion of the metropolitan centres is not incompatible with declines in many of the smaller communities; indeed it has often been the cause. To some extent there has been a process which may be called urban disaggregation. Of the 1,640 incorporated municipalities covered by the 1941 census, more than one-third registered some decline in population in the course of the preceding decade. The actual declines spread over 601 communities are comparatively small; but they represent 42,400 people,

[1] Detailed figures are summarized in Statistical Note C. Round figures are used since these statistics refer to the census definitions of urban and rural respectively.

or about nine per cent of the population of the centres involved. Not all of these changes, of course, were phenomena of metropolitan concentration; an abnormal number in the Prairie Provinces, particularly in Saskatchewan, were victims of the drought period. (See Tables 73 and 74).

Other tabulations of city populations reveal clearly that periods of growth differ markedly between one community and another, and that urban and industrial centres may be at various stages of maturity. Trade depression affects nearly all cities in some degree, but a few have registered more increase during the 'thirties than during the prosperous 'twenties. (See Table 11). Special causes may produce quite abnormal increases, as was true, for example, of Sudbury, Outremont and Verdun during 1921-1931, all of these cities more than doubling their population during that period.

TABLE 11.—POPULATION GROWTH IN CITIES WITH POPULATION OF 30,000 AND OVER, 1921-1941

City	Population in 1941	Population increase	
		1921 - 1931	1931 - 1941
		%	%
Halifax	70,488	1·5	18·9
Saint John	51,741	0·7	8·9
Montreal	903,007	32·3	10·3
Quebec	150,757	37·2	15·4
Verdun	67,349	143·0	10·9
Three Rivers	42,007	58·5	18·5
Sherbrooke	35,965	23·0	24·3
Hull	32,947	22·0	11·9
Outremont	30,751	116·2	7·4
Toronto	667,457	20·9	5·7
Hamilton	166,337	36·3	6·9
Ottawa	154,951	17·6	22·1
Windsor	105,311	75·5	7·3
London	78,264	16·7	10·0
Kitchener	35,657	41·5	15·8
Sudbury	32,203	114·8	73·9
Brantford	31,948	2·3	6·1
Fort William	30,585	27·9	16·4
St. Catharines	30,275	24·5	22·3
Kingston	30,126	7·8	28·5
Winnipeg	221,960	22·2	1·5
Edmonton	93,817	34·6	18·5
Calgary	88,904	32·3	6·1
Regina	58,245	54·5	9·5
Saskatoon	43,027	68·2	0·6*
Vancouver	275,353	51·1	11·7
Victoria	44,068	0·9	12·8
Combined 27 cities	3,573,500	31·0	10·3

Source: Population Censuses, 1921-1941.
*Decrease.

Equally abnormally, a few cities have had periods of almost stationary population (which, relatively speaking, means a decline), such as the city of Winnipeg, which grew only 1·5 per cent during 1931-1941. In the same period, Saskatoon, heavily affected by population migration due to the drought, actually was slightly smaller at the end of the census decade. Again, while increases of urbanization in general have been the rule in every province, the rates of increase have varied widely. Taking the period 1931-1941 as an example, urban expansion in Ontario, New Brunswick and British Columbia was of the order of eleven to twelve per cent, of fifteen to sixteen per cent in Nova Scotia and Quebec, and of less than five per cent in the Prairie Provinces. But this again to be fully understood must be related to trends in preceding decades.

Part of the value of these figures is to caution against applying the generalization of national trends to an individual city. Housing and town planning alike will always demand individual surveys for efficient adaptation of measures to each locality. This does not remove the need, however, for a national conspectus of the composite housing problem. One of the significant facts to note in most of the tabulations of trends in population is that there is no comparability between increases in numbers of persons and in the dwellings available or constructed to house them. The violent changes of the wartime economy have, of course, exaggerated this feature even more; and it will be necessary to attempt at least some measurement of this recent part of the picture before the full postwar perspective for housing programs can be understood.

City and Fringe Areas

The expansion of the urban population beyond its earliest boundaries is a familiar phenomenon. But the shortcomings both of statistics and of municipal boundaries are still apt to weaken recognition of its importance. The marginal expansions have been both residential and industrial, and transportation developments have, of course, been fundamental in promoting the trend. The attraction for residents is the greater amount of open space, better access to the country, cheaper and often more pleasant land areas for building. Industry moves towards this type of decentralization not only because of the economy of cheaper land, but also because building sites in the older parts of the central city are unavailable, ill adapted, or heavily handicapped by high real estate values and municipal taxes. The critical significance of this trend in terms of the municipal revenue pattern has been emphasized elsewhere. Here it is important to remember that in the largest metropolitan regions there may have been more than one cycle of growth and decline. The historical statistics of the census record absorptions from time to time of smaller municipalities by larger ones, as for example the amalgamation of Point Grey and South Vancouver with Vancouver (January 1, 1929), or of Sandwich, Walkerville and East Windsor with Windsor (1935). In other cases, as particularly in Montreal, the outer units—and indeed some of the inner units—remain as independent entities. Again, as notably in the Toronto region, they may remain not merely unabsorbed, but unincorporated.

Over these intricacies of nominal and legal barriers, the central drive towards economic interdependence between the people living in the central area and in the fringe districts persists. Sociologists have now established with reasonable definiteness the social and economic reasons for unity and diversity within the metropolitan "greater" community.[1] The relation may or may not be the simple one between a "dormitory" area (in the suburb) and the principal work place (in the central city). The satellite communities may or may not develop enough diversification of commercial and industrial property—or even community facilities generally—to be self-contained in any degree. It is one of the primary tasks of town planning to rationalize these developments of the urban aggregate so that the relation is not merely haphazard or unhelpful, but desirable and economic. But that city aggregates must now be considered as a whole is undeniable.

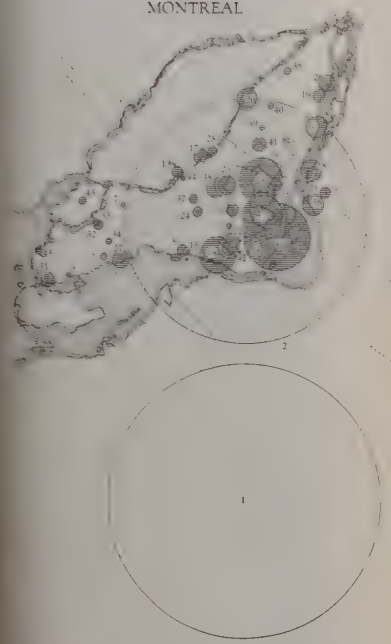
For statistical purposes, and for some others (e.g., in determining the desirability of traffic route extensions, public works facilities, etc.), the proper boundaries of a metropolitan community are sometimes set by reference to population density. The United States census sets the limit for suburbs and urbanized areas counted within the metropolitan community, as all adjacent civil divisions having a density of not less than one hundred and fifty inhabitants per square mile; and also as a rule those civil divisions of lower density that are

[1] The best known study is R. D. McKenzie: *The Metropolitan Community*. McGraw-Hill, New York. 1933.

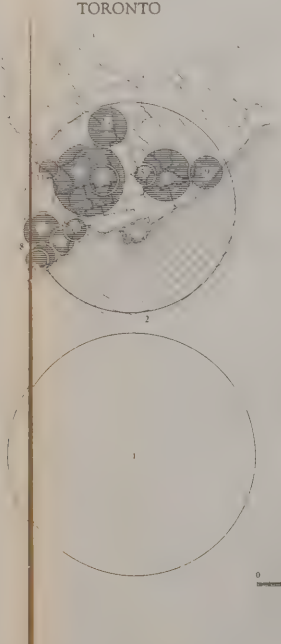
THE TWELVE "GREATER CITIES"* OF CANADA WITH THEIR CONSTITUENT SATELLITE COMMUNITIES, CENSUS OF 1941

LES DOUZE "GRANDES VILLES"* DU CANADA AVEC LEURS COMMUNAUTES SATELLITES CONSTITUANTES, RECENSEMENT DE 1941

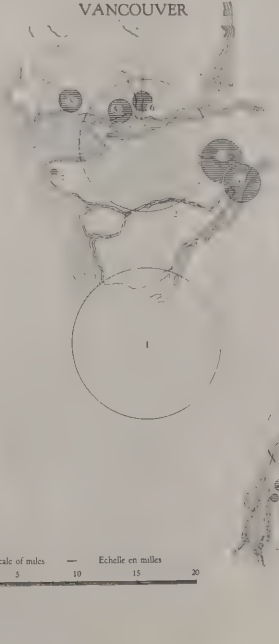
MONTREAL



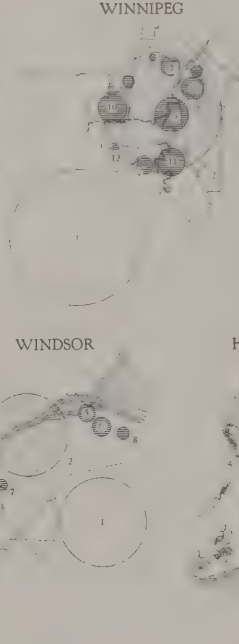
TORONTO



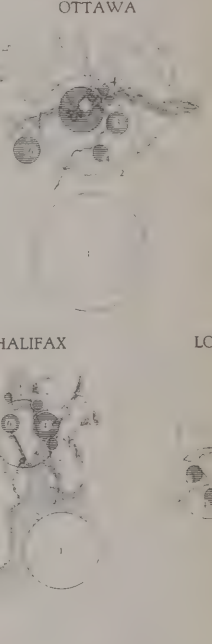
VANCOUVER



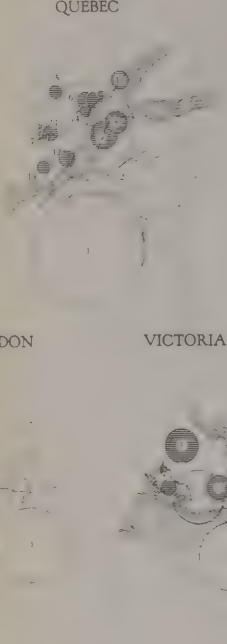
WINNIPEG



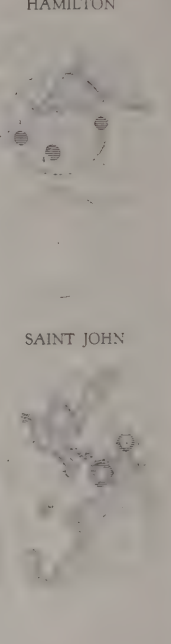
OTTAWA



QUEBEC



HAMILTON



WINDSOR

HALIFAX

LONDON

VICTORIA

SAINT JOHN

Scale of miles — Echelle en milles

0 5 10 15 20

Note: The Populations of the different cities and satellites are in proportion to the areas of the circles.

Nota: La population des différentes villes et satellites est proportionnée à la superficie des cercles.

*The term "Greater Cities" indicates those cities which have well defined satellite communities in close economic relationship to them. Not all of our larger cities (e.g. Calgary and Edmonton) are in this position.

*Le terme "Grandes villes" désigne les cités qui ont des communautés satellites bien définies avec lesquelles elles sont en étroite relation économique. Ce n'est pas le cas de toutes nos grandes villes (e.g. Calgary et Edmonton)

For list of satellite communities in each city see over. — Pour la liste des communautés satellites de chaque ville voir sur dos de cette carte.

LIST OF SATELLITE COMMUNITIES FOR EACH GREATER CITY

LISTE DES COMMUNAUTES SATELLITES DE CHAQUE GRANDE VILLE

1 GREATER MONTREAL - GRAND MONTREAL	1,139,921
2 Montreal (City Proper—Montréal (proprement dit)	903,007
3 Aisle-St Jean-de-Dieu (Mun.)	7,276
4 Baie-d'Urfe (Town—Ville)	236
5 Beaconsfield (Town—Ville)	706
6 Côte-St Luc (Village)	463
7. Dollard-des-Ormeaux (Mun.)	324
8. Dorval (Town—Ville)	2,048
9. Greenfield Park (Town—Ville)	1,819
10. Hampstead (Town—Ville)	2,287
11. Ile-aux-Soeurs (Mun.)	50
12. Ile-Dorval (Town—Ville)	—
13. L'Abord-à-Plouffe (Village)	1,773
14. Lachine (City—Cité)	20,051
15. La Présentation-de-la-Ste-Vierge (Mun.)	323
16. Lasalle (Town—Ville)	4,651
17. Laval-des Rapides (Town—Ville)	3,242
18. Longueuil (City—Cité)	7,087
19. Montreal E. (Town—Ville)	2,355
20. Montreal N. (Town—Ville)	6,152
21. Montreal S. (Town—Ville)	1,441
22. Montreal W.—O. (Town—Ville)	3,474
23. Mont-Royal (Town—Ville)	4,888
24. Notre-Dame-de-Lasue (Mun.)	1,629
25. Outremont (City—Cité)	30,751
26. Pointe aux Trembles (Town—Ville)	4,314
27. Pointe-Claire (Town—Ville)	4,536
28. Pont-Viau (Parish—Parousse)	1,342
29. Roxboro (Town—Ville)	23
30. Ste-Anne-de-Bellevue (Town—Ville)	3,006
31. Ste-Anne-du-Bout-de-l'Ile (Mun.)	686
32. Ste-Geneviève (Mun.)	1,362
33. Ste-Geneviève-de-Pierrefonds (Village)	489
34. St-Joachim-de-la-Pointe-Claire (Mun.)	536
35. St-Joseph-de-la-Rivière-des-Prairies (Mun.)	912
36. St-Lambert (City—Cité)	6,417
37. St-Laurent (Parish—Parousse)	1,151
38. St-Laurent (Town—Ville)	6,242
39. St-Leonard-de-Port-Maurice (Parish—Parousse)	340
40. St-Léonard-de-Port-Maurice (Town—Ville)	518
41. St-Michel-de-Laval (Town—Ville)	2,956
42. St-Pierre (Town—Ville)	4,061
43. St-Raphaël-de-l'Ile-Bizard (Mun.)	783
44. Saraguay (Village)	263
45. Senneville (Village)	555
46. Verdun (City—Cité)	67,349
47. Westmount (City—Cité)	26,047

1 GREATER TORONTO - GRAND TORONTO	
2. Toronto (City Proper) — Toronto (proprement dit)	900,491
	667,457
3. Etobicoke (Twp.) (pt.)	17,247
4. Forest Hill (Village)	11,737
5. Leaside (Town—Ville)	6,183
6. Long Branch (Village)	5,172
7. Mimico (Town—Ville)	8,070
8. New Toronto (Town—Ville)	9,504
9. Scarborough (Twp.) (pt.)	16,592
10. Swansea (Village)	6,988
11. Weston (Town—Ville)	5,740
12. York (Twp.)	81,032
13. York E. (Twp.)	41,821
14. York N. (Twp.)	22,908

1 GREATER VANCOUVER - GRAND VANCOUVER	351,491
2. Vancouver (City Proper) — Vancouver (proprement dit)	275,353
3 Burnaby District (Mun.)	30,328
4 New Westminster (City—Cité)	21,967
5 North Vancouver (City—Cité)	8,914
6 North Vancouver District (Mun.)	5,931
7. University Endowment Area	636
8 West Vancouver District (Mun.)	8,362

1 GREATER WINNIPEG - GRAND WINNIPEG	290,540
2 Winnipeg (City Proper) — Winnipeg (proprement dit)	221,960
3 Brooklands (Village)	2,240
4 Fort Garry (Mun.)	4,453
5 Kildonan E. (Mun.)	8,350
6 Kildonan N. (Mun.)	1,946
7 Kildonan W.—O. (Mun.)	6,110
8 Old Kildonan (Mun.)	704
9 St. Boniface (City—Cité)	18,157
10 St. James (Mun.)	13,892
11. St. Vital (Mun.)	11,993
12 Tuxedo (Town—Ville)	735

1 GREATER OTTAWA - GRAND OTTAWA	215,022
2. Ottawa (City Proper)—Ottawa (proprement dit)	154,951
3. Eastview (Town—Ville)	7,966
4. Gloucester (Twp.) (pt.) including Billings' Bridge, Cyrville and Overbrook	3,974
5. Hull (City—Cité)	32,947
6. Nepean (Twp.) (pt.) including Highland Park, Westboro, Woodroffe and Britannia Heights	11,474
7. Pointe-à-Gatineau (Village)	2,230
8. Rockcliffe Park (Village)	1,480

1 GREATER QUEBEC - GRAND QUEBEC	200,814
2. Quebec (City Proper)—Québec (proprement dit)	150,757
3 Beauport (Town—Ville)	3,725
3 Beauport-E (Village)	587
5 Charlesbourg (Village)	2,789
6 Giffard (Village)	4,909
7 La Petite Rivière (Parish—Parousse)	281
8 Lauzon (Town—Ville)	7,877
9 Lévis (City—Cité)	11,991
10. Montmorency (Village)	5,393
11. Québec W.—O. (Town—Ville)	3,619
12. St-Colomb-de-Sillery (Parish—Parousse)	4,214
13. Ste-Foy (Parish—Parousse)	2,682
14. St-Michel-Archange (Mastai)	1,990

1 GREATER HAMILTON - GRAND HAMILTON	176,110
2. Hamilton (City Proper)—Hamilton (proprement dit)	166,337
3. Ancaster (Twp.) (pt.)	3,042
4 Barton (Twp.) (pt.)	3,915
5. Saltfleet (Twp.) (pt.)	2,816

1. GREATER WINDSOR - GRAND WINDSOR	121,112
2. Windsor (City Proper)—Windsor (proprement dit)	105,311
3. La Salle (Town—Ville)	951
4. Ojibway (Town—Ville)	24
5. Riverside (Town—Ville)	4,878
6. Sandwich E. (Twp.) (pt.)	5,547
7. Sandwich W.—O. (Twp.) (pt.)	1,989
8. Tecumseh (Town—Ville)	2,412

1 GREATER HALIFAX - GRAND HALIFAX	91,829
2 Halifax (City Proper)—Halifax (proprement dit	70,488
3. Bedford Basin Polling Division (pt.) including Rockingham	1,098
4. Dartmouth (Town—Ville)	10,847
5. Ferguson's Cove Polling Division	448
6. Northwest Arm Polling Division, including Fairview, Armdale and Jollimore	5,216
7 Tuft's Cove Polling Division	1,604
8 Woodside Polling Division	2,128

1 GREATER LONDON - GRAND LONDON	86,740
2. London (City Proper)—London (proprement dit)	78,264
3. London (Twp.) (pt.)	4,348
4. Westminster (Twp.) (pt.)	4,128

1 GREATER VICTORIA - GRAND VICTORIA	75,218
2. Victoria (City Proper)—Victoria (proprement dit)	44,068
3. Esquimalt (Mun.)	3,737
4. Oak Bay (Mun.)	9,240
5. Saanich (Mun.) (pt.)	18,173

1 GREATER SAINT JOHN - GRAND SAINT JOHN	65,784
2. Saint John (City Proper)—Saint John (proprement dit)	51,741
3. Lancaster (Parish—Parousse)	9,043
4. Simonds (Parish—Parousse) (pt.) including Brookville, Coldbrook, East St. John, Golden Grove, Glen Falls and Torryburn	5,000

directly contiguous to the central city, or are entirely or nearly surrounded by minor civil divisions having the required density. It has not been necessary to seek any such exact definition for Canadian purposes, but adherence has been made to the delimitations set by a special Bureau of Statistics study of the data of the 1931 and 1941 Censuses (see Figure 2).[1]

The most indicative figures, showing the importance of considering not merely city units but their metropolitan areas, are summarized in Table 12. Of the 3,715,000 persons comprised herein in 1941, more than twenty-two per cent lived in the fringe or satellite communities. As the figures for the individual cities show, this average is a fairly representative one. Hamilton, London, and Victoria are the outstanding exceptions; and Windsor would have shown a larger outer population but for the recent amalgamations referred to above. Even so, the fringe population can easily be affected by a fortuitous geographical or historical circumstance in each city. Obviously, if town planning in the past had been completely far-sighted, the boundaries of our major cities would have been drawn from the beginning at such limits as would have contained almost all the population for which housing and services should be reasonably developed. Put in another way, housing or town planning legislation from now on, if designed with only the existing city boundaries in mind, will cover only little more than three-quarters of the actual problem, and will make even less provision for the far future.

TABLE 12.—DISTRIBUTION OF POPULATION BETWEEN CITY AND FRINGE AREAS, PRINCIPAL METROPOLITAN COMMUNITIES, 1941

Metropolitan Communities	Population	Percentage of population living in	
		City area	Fringe area
		%	%
Halifax	91,829	76·8	23·2
Saint John	65,784	78·7	21·3
Quebec	200,814	75·1	24·9
Montreal	1,139,921	79·2	20·8
Ottawa	215,022	72·1	27·9
Toronto	900,491	74·1	25·9
Hamilton	176,110	94·5	5·5
London	86,740	90·2	9·8
Windsor	121,112	87·0	13·0
Winnipeg	290,540	76·4	23·6
Vancouver	351,491	78·3	21·7
Victoria	75,218	58·6	41·4
Total	3,715,072	77·8	22·2

Source: Bulletin A-13, Dominion Bureau of Statistics, Census, 1941.

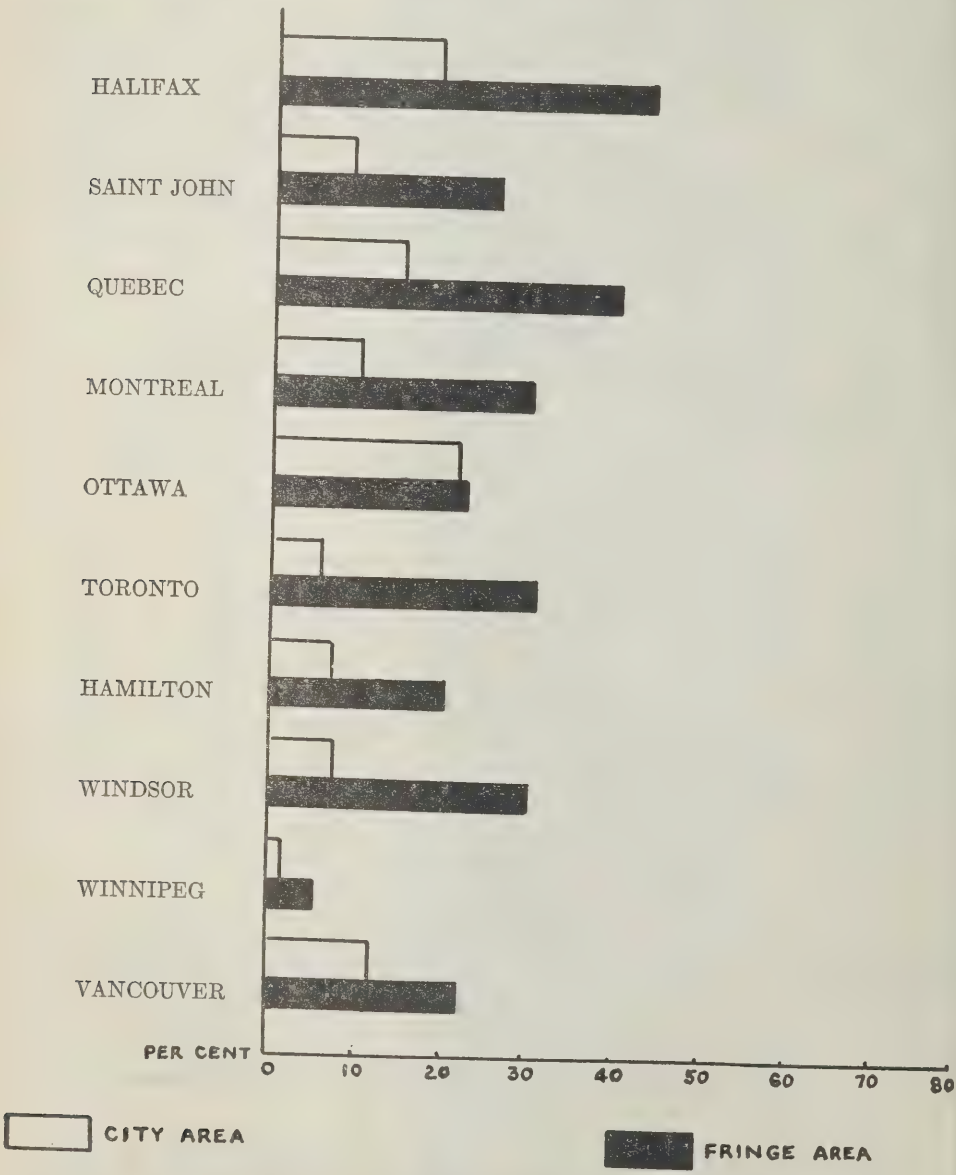
Even more important than the present distribution of population between the two parts of the metropolitan aggregate, is the divergence in rates of growth (See Table 13 and Figure 3). Taking only the last census decade, the city areas proper of the ten centres which may be compared for that period increased their population by 9·2 per cent; the outer areas increased at more than twice that rate (21·1 per cent). It is noticeable at once that there is a much wider diversity between the cities in rates of growth than in the proportions of population dis-

[1] Cudmore, S. A. and H. G. Caldwell, *Rural and Urban Composition of the Canadian Population*. Census Monograph No. 6. 1938. The useful chart accompanying this text has been brought up to date on the basis of the 1941 Census and has been made available by courtesy of the Census Branch, Dominion Bureau of Statistics.

tribution just referred to. Greater Toronto, for example, registered population increases of thirty per cent in its outer areas and Greater Halifax more than forty per cent. Fringe areas around Montreal and Quebec exceeded only by about five per cent the growth of the central areas. The relatively small increase of five per cent in the Winnipeg suburbs must be measured against the abnormally small growth of the main part of the city already mentioned.

FIGURE 3

PROPORTIONATE POPULATION GROWTH IN METROPOLITAN AREAS, 1931-1941



This chart shows, for the 10 metropolitan areas of Canada for which comparable data are available for the two years, the growth in the population of the city proper and of the fringe area, as revealed by the Censuses of 1931 and 1941.

TABLE 13.—POPULATION GROWTH IN SELECTED METROPOLITAN COMMUNITIES AND CITIES PROPER, 1931-1941

City	Population growth		
	Metropolitan area	City area	Fringe area
	%	%	%
Halifax	23·8	18·9	43·4
Saint John	12·0	8·9	25·4
Quebec	16·4	15·4	19·4
Montreal	11·4	10·3	15·8
Ottawa	22·2	22·1	22·3
Toronto	11·1	5·7	30·0
Hamilton	7·6	6·9	19·7
Windsor	9·7	7·3	29·5
Winnipeg	2·2	1·5	4·7
Vancouver	14·0	11·7	23·3
Total 10 Cities	11·7	9·2	21·1

Source: Compiled by courtesy of Census Branch, Dominion Bureau of Statistics.

A number of other tabulations separating the central and outer areas of Canada's main cities have been prepared, and these have been extended to considerable detail in the case of Montreal and Toronto.[1] It should not be necessary to labour the point further that housing and town planning programs must extend to the whole of the reasonably definable metropolitan region; but these figures may help to indicate some of the factors which are thereby involved, and will be of interest also to those concerned with legislating for these cities as such.

Types of Dwellings

The number of dwellings in which the Canadian urban population was housed at the time of the last census amounted to 1,437,000. Only about 22,000 of these dwellings were vacant when the census was taken in June, 1941. In the twenty-seven major cities (comprising somewhat over three-and-a-half millions of the census urban total of six-and-a-quarter million) there were approximately 810,000 dwellings; and of these about 10,000 were vacant at the time of the enumeration. These latter figures in themselves are significant, for the proportion of about one per cent of unoccupied or vacant dwellings is the lowest figure on record. Some of these houses reported as vacant may have been uninhabitable, and others may have been unoccupied only for the short time which elapses between vacation of the premises by one occupier and the moving in of another. There is little doubt, therefore, that this is an indication that practically all available housing accommodation was taken up in June, 1941. Specific figures for most of the larger cities add their testimony to these abnormally low margins of reserve or accommodation mobility. Since the census date, of course, population in most of the main urban centres has increased at greater speed than before the war, while new house building has been under war handicaps in attempting to catch up with the demand, so that conditions of inadequate accommodation and overcrowding have been intensified. One of the implications is that the census figures of total housing supply should not be regarded as they stand, as a completely adequate basis for calculating future needs. They are clearly understatements of what is required if most urban areas are to have any margin for flexibility, demolition, and improvement of accommodation generally.

It may be mentioned once again that overall figures may conceal important regional divergences. It is possible that shortages in some areas may coexist with surpluses in others. The necessity of some knowledge as to probable trends

[1] See Supplementary Tables, Section C.

when wartime industries demobilize, is one of the difficulties that has to be met in projecting postwar programs. It is well to note the principal features of the 1941 patterns, however, before these complications are introduced.

As many as forty-three per cent of Canadian city and town dwellings is still mainly of wooden construction. A slightly larger proportion (44·5 per cent) are principally of brick construction. Stucco exteriors, which are most likely to be applied to wooden structures, account for another 7·5 per cent; and only 2·5 per cent (commonly characteristic of the larger, older and more expensive properties) are built of stone. Before too much weight is attached to the proportion of wooden and brick dwellings, it should be noted that the technique of construction with wood—and for that matter many other materials—has improved rapidly in recent years; and also that local building by-laws may be unduly discriminatory in favour of brick. Another important factor is that figures of types of construction materials used relate to *dwellings*.[1] If data were available on types of materials for *buildings*, the proportion of brick houses would appear in its proper light, i.e., as much smaller than the proportion of wooden houses. The explanation is that the majority of apartment houses are built of brick and, therefore, the number of brick dwellings is considerably greater than the number of residential brick buildings The same is not true of single family homes, which make up a large proportion of the total housing supply. The significance of this distinction is perhaps best illustrated by the figures from the 1931 Census which showed that 56 per cent of buildings containing dwellings were built of wood against 35 per cent built of brick. Because the figures of the 1941 Dominion Census relate to dwellings and the figures of the 1931 Dominion Census relate to buildings, the above two sets of figures are not comparable and, therefore, cannot be used as an indication of changing trends of building methods.

For somewhat similar reasons, trends with respect to dwelling units are also somewhat complex, and must be interpreted with caution. There is little doubt that a preference for one-family houses continues among Canadians, but distinct changes in taste have been registered in recent decades. According to the preliminary figures of the 1941 Housing Census, 54·5 per cent of all the dwellings in the major cities were single units, and another 9·2 per cent were semi-detached. One-third of all the dwelling units were in apartments, flats or duplexes; and only two per cent, in contrast with common European practice, were dwellings built in rows or terraces. Compared with the situation ten years earlier, this shows a substantial increase in the proportion of apartments and flats, the comparable percentages for single and multiple dwellings for 1931 being 59 and 28. During the war years the trend has again been changed, since far more one-family houses than apartments have been built. The change in the direction of expenditures for new construction is quite striking. (See Table 14.)

[1] A clear understanding of the definitions applied to the principal terms used in housing statistics is important. Briefly, these are the following: (1) a ***dwelling***, relates to a structurally separate set of self-contained premises (e.g. an apartment); (2) a ***building***, relates to a structure in which one or more persons usually live (e.g. an apartment house); (3) a ***household***, relates to a group of persons in one housekeeping community irrespective of their relationship (e.g. a family or two friends living together); (4) a ***family***, a term restricted to husband-wife or parent-child relationship (e.g. parents and one child).

TABLE 14.—EXPENDITURES FOR NEW CONSTRUCTION OF ONE-FAMILY HOMES AND APARTMENT HOUSES, 1938-1941

Year	Expenditure for new construction of			
	One-family homes		Apartment houses	
	million dollars	per cent	million dollars	per cent
1938	24·4	79·5	6·3	20·5
1939	29·9	78·2	8·3	21·8
1940	37·0	85·3	6·4	14·7
1941	58·0 (1)	89·5	6·8	10·5

Source: Dominion Bureau of Statistics, Reports on the Construction Industry, 1938-1941.
[1] About 1,200 temporary housing units, completed by the Wartime Housing Limited during 1941, are included.

But some allowance must be made for the restrictions imposed on residential building due to material shortages and the need of conserving labour and supplies. The houses built by Wartime Housing Limited have also been a special factor. In any case, it must be remembered that apartment buildings house a proportionately larger number of individuals than single houses so that the trend in terms of population is a less decided one.

Size of Housing Accommodation

In the major cities of Canada, the most typical sizes of dwellings are four, five or six rooms. This group comprises more than sixty per cent of the total accommodation. The larger houses and dwellings, i.e., those which run to seven rooms or more, make up twenty-two per cent; and smaller places of three rooms or less are a minority of sixteen per cent. The distribution put in these terms is more significant than the single average which often tells very little of housing adequacy, particularly when this must be measured against the differing size of the occupying families. There are far more larger dwellings in Toronto than in Montreal, two-thirds having six rooms or more in the former city as against only thirty-six per cent in Montreal (See Table 15). One of the reasons for this is the fact that Montreal proper has a great supply of apartments and flats (some of which have been constructed by conversion of old dwellings), which do not provide the more spacious living accommodations provided by Toronto homes. The proportion of owned dwellings (43·8 per cent) is far greater in Toronto proper than in the Quebec metropolis (11·5 per cent).

TABLE 15.—NUMBER OF ROOMS PER DWELLING: MONTREAL, TORONTO, VANCOUVER, AND ALL CITIES WITH POPULATION OF 30,000 AND OVER, 1941

Number of rooms	Combined 27 cities		Percentage distribution		
	No.	P.C.	Montreal	Toronto	Vancouver
			%	%	%
1	15,400	1·9	2·7	1·0	2·9
2	32,400	4·0	3·2	2·7	6·7
3	81,800	10·1	11·2	7·5	12·6
4	145,000	17·9	25·8	8·7	23·6
5	158,800	19·6	20·7	13·3	20·5
6	196,800	24·3	20·9	34·9	15·8
7	86,700	10·7	9·4	11·3	9·5
8 or more	93,100	11·5	6·1	20·6	8·4
Total (1)	810,000	100·0	100·0	100·0	100·0

Source: Bulletin HF 1, and Preliminary Bulletins 10, 12 and 22, Housing Census 1941, Dominion Bureau of Statistics. Figures for combined cities specially supplied by courtesy of the Housing Census Branch, Dominion Bureau of Statistics.
(1) Number of dwellings in Montreal, 201,000; Toronto, 146,000; Vancouver, 72,000. These and totals in first column, to nearest thousand.

These figures gain real significance for housing programs only if they are examined in more detail in terms of actual overcrowding. It is worthy of note, however, that the tendency is for new dwellings to be smaller in size than those of past decades. In the major cities just under half of all dwelling units had less than six rooms in 1931; but by 1941 this proportion had arisen to 53·5 per cent. (See Table 16.) The trend was very pronounced in Montreal, and less so in Vancouver. In Toronto, however, and perhaps in some other cities, new building showed a distinct exception to this rule. The tendencies were not equally at work in the outer parts of the metropolitan regions, where large houses are now most frequently built. On the whole, however, demographic factors—the decline in the size of the average family, and to some extent retardation in the marriage rate—appear to have exerted some influence during this intercensal period. Declining incomes of many families during the 'thirties, and increase in certain elements of construction cost also led many would-be owners to build smaller homes at prices within their means. Landlords investing in tenement houses or apartments have favoured smaller units since there is a high demand for the lower rents and a reduced vacancy rate. Whether these tendencies should be considered as applicable to the post-war period depends on a number of considerations of building cost, financial assistance to housing programs, and town planning provisions, besides the fact that the marriage rate has risen considerably and that incomes under a full employment regime may be more substantial. But the case for a higher proportion of larger dwellings must not be ignored. Both in houses and in apartments in the recent past there has been a strong tendency towards conditions of overcrowding, from the outset in the case of large families in small quarters, and in other cases through gradual growth of the family. It is, of course, not enough to build large houses, but costs of acquisition and rents must be low enough to enable large families with moderate incomes to occupy these homes.

TABLE 16.—SIZE OF HOUSEHOLDS IN MONTREAL, TORONTO, VANCOUVER, AND ALL CITIES WITH POPULATION OF 30,000 AND OVER, 1931 AND 1941

Cities	1931		1941	
	5 rooms or less	6 rooms or more	5 rooms or less	6 rooms or more
	%	%	%	%
Montreal	54·5	45·5	63·6	36·4
Toronto	38·7	61·3	33·2	66·8
Vancouver	65·7	34·3	66·3	33·7
27 Combined Cities	49·4	50·6	53·5	46·5

Source: Census Monograph No. 8. *Housing in Canada*, Dominion Bureau of Statistics, Ottawa, 1941, pp. 142-143, Preliminary Bulletins 10, 12 and 22, Housing Census, 1941. Figure for 1941 for combined cities with population of 30,000 and over, by courtesy of the Housing Census Branch, Dominion Bureau of Statistics. Figures for 1941 are preliminary. Definitions of "household" used in the 1931 and in the 1941 Housing Censuses differ, but not enough to affect the main showing.

Overcrowding

Standards of housing adequacy based only on the number of rooms cannot be calculated as precisely as, for example, nutritional standards. One room per person can be taken as a reasonable dividing line to provide a first-approximation gauge of whether requirements for health, privacy and convenience are met or not. For a four-person household living in the same number of rooms, this means two persons per bedroom with a kitchen and one living-room, which is by no means lavish in daily living accommodation, and assumes that if two grown-up children are of different sex, the living-room is used as a bedroom at

night.[1] A room as a unit of measurement, of course, is far from standardized; it may be too large or too small. Frequently, however, a kitchenette or small kitchen is counted as a room, and as such does not provide the required living space. All in all, it constitutes, by Canadian standards, a fairly conservative basis for estimates of overcrowding applicable to the main urban centres.

It is a very necessary task to examine the statistics which are now available on a national basis (through the last Housing Census) on the subject, for the information which they contain is easily obscured by mechanical or insufficiently refined handling. To begin with, overcrowding, which hardly seems appreciable if judged by the national average, assumes an immediate and different significance when it is evaluated in terms of the distribution of income. Overcrowding among families with low income is considerably greater than among families belonging to the middle or higher income groups, and the rise in the proportion of crowded dwellings as family earnings decline, is quite striking. In the twenty-seven major cities of Canada, 18·5 per cent of the dwellings on the average are overcrowded. But as Table 17 shows, only twelve per cent of the families with incomes of $2,000 a year or more are overcrowded, compared with 40 per cent of those with incomes of less than $500 a year. The

TABLE 17.—DISTRIBUTIONS OF CROWDED DWELLINGS AT DIFFERENT FAMILY EARNINGS LEVELS, MAJOR CITIES, 1941

Cities	Percentage of overcrowded dwellings among family earnings Groups indicated				
	$0–499	$500–999	$1000–1499	$1500–1999	$2000
Halifax	37	38	38	23	14
Saint John	43	28	18	12	12
Montreal	45	33	25	23	22
Quebec	59	47	42	35	34
Verdun	29	19	22	16	20
Three Rivers	57	38	41	32	43
Sherbrooke	32	36	30	31	29
Hull	63	49	33	38	34
Outremont	50	—	10	2	5
Toronto	21	17	12	8	7
Hamilton	29	15	8	11	8
Ottawa	55	38	21	14	8
Windsor	20	27	17	17	10
London	23	9	9	6	8
Kitchener	9	9	17	7	13
Sudbury	8	45	43	27	22
Brantford	18	16	5	6	8
Fort William	47	48	23	15	12
St. Catharines	14	6	9	9	7
Kingston	44	22	15	6	10
Winnipeg	51	29	13	9	7
Edmonton	44	40	20	10	8
Calgary	44	37	15	9	4
Regina	55	40	26	12	10
Saskatoon	30	18	14	6	4
Vancouver	26	21	12	7	7
Victoria	10	19	9	6	3
Combined 27 Cities	40	29	20	15	12

Source: Special compilation by courtesy of the Housing Census Branch, Dominion Bureau of Statistics.

[1] For a family consisting of three persons (*i.e.* parents and only one child), living in a small apartment composed of two rooms and kitchen, this may require the placing of a bed for the child in the living room, or else the situation of three persons sleeping in one room. For four and five-person households living in the same number of rooms, the standard implies a minimum of two persons per bedroom with a kitchen and one living-room; otherwise living-rooms must also be used for sleeping accommodation.

proportion among the $1,000-$1,500 group, whose income in the average case is most likely to support the "economic rent" of $20-$30, is of particular interest. One in five of these families is overcrowded (though typical percentages in particular cities range from about 15 to 30). In other words, income level is not a sufficient guide to what is practicable without consideration of family size as well. Below $1,000 of course, income deficiencies evidently cause some overcrowding almost irrespective of family size; in eleven out of the 27 cities, the proportion of overcrowding among the families of this income level is more than 35 per cent.

Income per person rather than income per family is a better device for examining the essential facts. The concentrated incidence of overcrowding can be seen through the distribution of the rooms-persons ratios on this basis. (See Table 18). The overall figure for major Canadian cities is 1·3, i.e., in average terms a very satisfactory degree of accommodation. A few cities are near the margin even in average terms, particularly Hull, Quebec City, Montreal and Sudbury and one (Three Rivers) just below it. But the great bulk of overcrowding is among families whose income and numbers between them make available less than $200 per person per year. Even these figures are not fully

TABLE 18.—AVERAGE NUMBER OF ROOMS PER PERSON IN WAGE-EARNER PRIVATE FAMILIES WITHOUT LODGERS, GROUPED ACCORDING TO AVERAGE EARNINGS PER PERSON, MAJOR CITIES, 1941

Cities	City average (rooms per person)	Rooms-persons rates in families with average earnings per person		
		$0–99	$100–199	$200–299
Halifax	1·2	0·7	0·8	0·9
Saint John	1·3	0·8	0·9	1·2
Montreal	1·1	0·8	0·8	1·0
Quebec	1·0	0·7	0·7	0·9
Verdun	1·2	0·8	0·8	1·0
Three Rivers	0·9	0·7	0·7	0·9
Sherbrooke	1·1	0·6	0·7	1·0
Hull	1·0	0·7	0·8	1·0
Outremont	1·5	0·8	1·2	1·2
Toronto	1·5	1·1	1·0	1·1
Hamilton	1·4	1·1	1·0	1·1
Ottawa	1·3	0·9	0·8	1·0
Windsor	1·3	1·0	0·8	0·9
London	1·5	1·0	1·1	1·2
Kitchener	1·4	1·5	1·0	1·0
Sudbury	1·1	0·8	0·8	0·8
Brantford	1·6	1·3	1·1	1·2
Fort William	1·2	0·8	0·8	1·0
St. Catharines	1·5	1·0	1·0	1·1
Kingston	1·5	1·0	1·0	1·1
Winnipeg	1·3	0·8	0·9	1·0
Edmonton	1·2	0·8	0·8	1·0
Calgary	1·3	1·0	0·8	1·0
Regina	1·2	0·8	0·8	1·0
Saskatoon	1·4	0·9	1·0	1·1
Vancouver	1·4	1·1	1·0	1·1
Victoria	1·5	1·2	1·1	1·2
Combined 27 Cities	1·3	0·9	0·9	1·0

Source: Dominion Bureau of Statistics, Housing Census, 1941, Preliminary Bulletin 30. Beyond $300 per person, an average number of rooms per person everywhere exceeded one (i.e. no overcrowding was indicated.) City averages, however, do not disclose the fact that there may be a substantial proportion of dwellings with less than one room per person because a number of large dwellings occupied by only a few persons contribute to a rise of the average. In Montreal, for example, the average number of rooms per person earning between $400 and $499, was 1·3. Nevertheless, there were 17·2 per cent of all persons in that income group living in less than one room per person.

revealing by themselves. Thus in a substantial group of the larger Ontario cities, and the two principal cities of British Columbia, the accommodation available, *spread over the lowest income groups as a whole*, is evidently better than elsewhere. The fact that the average does not fall below 1·0, however, does not indicate there is no overcrowding at all. This came nearest to being true in London, Kitchener, and St. Catharines,[1] but as comparison with Table 17 shows, a rooms-persons rate of 1·0 is not incompatible with percentages of overcrowded families of between 6 and 9 among the $500-$1,000 group.

City averages do not disclose the fact that there may be a substantial proportion of dwellings with overcrowded families, because a number of large dwellings occupied only by a few persons contribute disproportionately to a rise of the average.[2] A special tabulation made by the Dominion Bureau of Statistics covering the four largest cities indicates that "less than one room per person was available for approximately 61 per cent of persons at the $100-$199 earnings level, 13 per cent at the $400-$499 level, and 3 per cent at the $800 + level". For the major cities it is estimated that "these percentages would be equivalent to a minimum of 329,000 persons with less than one room per person below the $200 earnings level, 136,000 between $200 and $499, and 20,000 at $800 and over, 485,000 in all, or 21 per cent of members of wage-earner private families".[3] The bulletin concludes that these figures "suggest very strongly that adequacy of living accommodation is closely related to income".

Another fallacy which should be dispelled is the belief that overcrowding is mainly due to the depression of the 'thirties and to the influx of people to the major urban centres on account of the present war. As a matter of fact, statistics available from the 1931 census show that as early as June, 1931, at least 25 per cent of the population in Canadian cities of 30,000 and over lived in dwellings which provided less than one room per person. In some cities, the proportion exceeded 40 per cent. The impact of the depression was felt most strongly in the middle 'thirties. If overcrowding was substantial in June, 1931, two to three years before the main depression, it may be safely concluded that overcrowding is not simply a consequence of the last depression, but existed long before. Obviously, overcrowding was intensified by unemployment and the reduced income of the Canadian population in the 'thirties. But lags in building, especially at the lower rental levels, have had a persistent effect. The numbers of new housing units and reconverted old dwellings added to the housing supply during 1935-1939 were not sufficient to counteract the high degree of overcrowding in existence in 1934.

The need for conserving war materials and labour resources prevented any drastic reversal of the trend of residential building activity during the present war. This, combined with the great influx of population to the major urban centres, has intensified the already existing state of overcrowding. Even in June, 1941, when the Housing Census was taken, the proportion of overcrowded dwellings in cities with population of 30,000 and over varied between 7 per cent and about 35 per cent, showing an average of 18·5 per cent for the combined 27 cities (see Table 19 and Figure 4). Since then more houses have been built, both under the National Housing Act and by Wartime Housing Limited, but residential building has been on a liimted scale and by no means sufficient to catch up with the constantly growing demand for new housing.

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[1] The reminder must be added that these are 1941 figures, and all of these cities have been subject to abnormal industrial expansion in the succeeding war years. There is little doubt that contemporary housing shortage and consequent overcrowding has increased.

[2] An example (from the 1931 Housing Census) is provided by Montreal where the average rooms per person was 1·18. However, only 60 per cent of the total number of persons concerned were in dwellings with an accommodation rate of one room per person or more, whereas 40 per cent lived in dwellings where the ratio was less than one room per person.

[3] Preliminary Bulletin No. 30, Housing Census 1941, Dominion Bureau of Statistics. p. 3.

TABLE 19.—OVERCROWDED DWELLINGS IN THE MAJOR CANADIAN CITIES (POPULATION OVER 30,000) 1941. (STANDARD USED: EXCESS OVER ONE PERSON PER ROOM.)

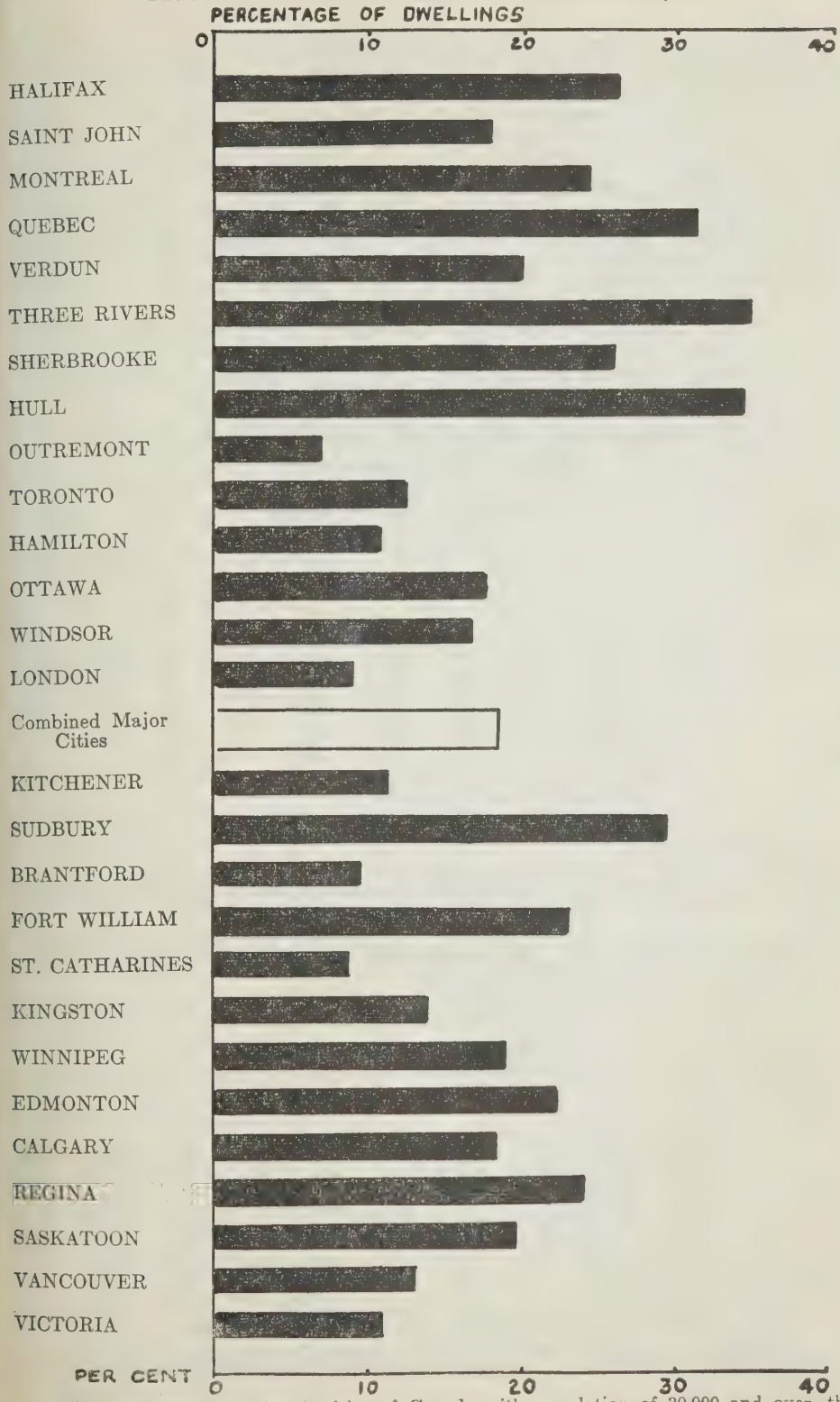
Cities	Total number of dwellings	Overcrowded dwellings	
		No.	P.C.
Halifax	13,571	3,542	26·1
Saint John	11,989	2,146	17·9
Montreal	201,388	49,139	24·4
Quebec	27,177	8,506	31·3
Verdun	16,119	3,208	19·9
Three Rivers	7,458	2,588	34·7
Sherbrooke	7,667	1,986	25·9
Hull	6,121	2,112	34·5
Outremont	6,982	489	7·0
Toronto	145,606	18,055	12·4
Hamilton	40,267	4,309	10·7
Ottawa	32,705	5,691	17·4
Windsor	25,443	4,325	17·0
London	20,639	1,837	8·9
Kitchener	8,515	971	11·4
Sudbury	7,393	2,188	29·6
Brantford	8,222	806	9·8
Fort William	6,367	1,458	22·9
St. Catharines	7,514	661	8·8
Kingston	6,640	923	13·9
Winnipeg	49,504	9,406	19·0
Edmonton	23,449	5,206	22·2
Calgary	21,841	4,041	18·5
Regina	13,064	3,135	24·0
Saskatoon	10,538	2,055	19·5
Vancouver	72,484	9,568	13·2
Victoria	11,633	1,291	11·1
Combined 27 Cities	810,296	149,642	18·5

Source: Bulletin HF-1, Dominion Bureau of Statistics, Census 1941, and Preliminary Bulletin on Overcrowding, Housing Census, 1941.

To compute the total amount of overcrowding existent according to the statistical criterion explained above, a careful examination of the census tabulations was necessary. The results for the major cities indicate that, in round numbers, 150,000 households, comprising about one million people, lived in overcrowded conditions. Included in these crowded households were about 40,000 lodging families; and another 70,000 lodging families lived in households which themselves averaged more than one room per person. Thus it would require about 110,000 new dwelling units merely to give separate homes to each family, for all the major Canadian cities. This estimate does not take into account new dwellings which would be required to accommodate families whose present housing accommodation is not large enough for them. Furthermore, no allowance is made for obsolete and substandard dwellings which should be replaced. Taking these factors into consideration, even at a conservative estimate a considerably greater number of new housing units than 110,000 would be required before one could be certain that decent housing accommodation is available for families living in the major urban centres. (See Chapter 6.)

A further important amplification will show that even if every family lived in a home of its own and not considering obsolete and substandard dwellings, the existing housing supply would not be sufficient to meet the demand. This is the shortage of large dwelling units. Obviously, large families require them. If, in certain cities, proportions of small and large dwellings are not adjusted to the distribution of different sized families, such a state of affairs raises problems, and requires remedy. In order to throw light on this factor, and to ascertain whether sizes of dwellings are in fact properly related to different sizes of family,

FIGURE 4.—OVERCROWDING IN MAJOR CITIES, 1941



This chart shows, for the 27 cities of Canada with population of 30,000 and over, the extent of overcrowding, this being defined as the proportion of dwellings in each city in which the accommodation afforded is less than one room per person.

a special computation based on a ten per cent sample was made available through the courtesy of the Housing Census Branch of the Dominion Bureau of Statistics, Greater Montreal being selected as a test case.

The figures are confined to households whose heads are wage-paid or salaried employees. In particular, they relate to normal families (that is, married couples with or without children), to so-called "broken single" families (one parent with children) and to single housekeeping units of more than one person without lodgers. This sample shows the main facts of overcrowding classified according to the number of persons in the family or housekeeping unit and the number of rooms occupied. It serves also as a special indication of housing needs in Greater Montreal, the largest single housing aggregate in Canada (totalling at present about 250,000 dwellings).

In the two tables of absolute numbers and percentages, two groups are distinguished by the dividing line, namely, those families which were accommodated on a reasonably adequate scale, averaging at least one room per person and those families which were overcrowded. (See Tables 20 and 21).

TABLE 20.—COMPARATIVE SIZE AND ACCOMMODATION OF DWELLINGS OCCUPIED BY WAGE-EARNER FAMILIES, GREATER MONTREAL, 1941

Number of persons (10% sample)

Number of rooms	Number of occupants (size of family)									Total
	2	3	4	5	6	7	8	9	10 and over	
1	106	26	1	1	1	1	—	1	1	138
2	166	63	29	16	8	3	2	1	1	289
3	741	438	221	98	43	18	7	4	3	1,573
4	1,221	1,100	769	474	222	144	66	44	24	4,064
5	496	840	720	460	349	212	122	72	91	3,362
6	234	517	646	553	375	247	202	99	170	3,043
7	69	158	249	226	145	122	84	64	90	1,207
8	22	54	64	65	63	34	16	17	48	383
9	10	19	27	30	17	14	8	10	13	148
10 and over	13	18	18	18	16	16	7	8	7	121
Total [1]	3,078	3,233	2,744	1,941	1,239	811	514	320	448	14,328

Source: Special compilation by courtesy of the Housing Census Branch, Dominion Bureau of Statistics.

[1] These figures relate to households whose heads are wage-paid or salaried employees. More particularly, they relate to normal families, (i.e. married couples with or without children) to "broken single" families (e.g., one parent with children) and to single housekeeping units of more than one person without lodgers.

TABLE 21.—PERCENTAGE DISTRIBUTION, ACCORDING TO COMPARATIVE SIZE AND ACCOMMODATION, OF DWELLINGS OCCUPIED BY WAGE-EARNER FAMILIES, GREATER MONTREAL, 1941

Percentage distribution by size of family.

Number of rooms	Number of occupants (size of family)									Total
	2	3	4	5	6	7	8	9	10 and over	
1	3·4	0·8	0·0	0·1	0·1	0·1	—	0·3	0·2	1·0
2	5·4	1·9	1·1	0·8	0·6	0·4	0·4	0·3	0·2	2·0
3	24·1	13·5	8·1	5·0	3·5	2·2	1·4	1·2	0·6	11·0
4	39·8	34·1	28·0	24·5	17·9	17·8	12·8	13·8	5·4	28·3
5	16·1	26·0	26·2	23·7	28·2	26·1	23·7	22·5	20·3	23·5
6	7·6	16·0	23·5	28·6	30·2	30·5	39·3	31·0	38·0	21·2
7	2·2	4·9	9·1	11·6	11·7	15·0	16·3	20·0	20·1	8·4
8	0·7	1·7	2·3	3·3	5·1	4·2	3·1	5·3	10·7	2·7
9	0·3	0·6	1·0	1·5	1·4	1·7	1·6	3·1	2·9	1·0
10 and over	0·4	0·5	0·7	0·9	1·3	2·0	1·4	2·5	1·6	0·9
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

Source: Special compilation of courtesy of the Housing Census Branch, Dominion Bureau of Statistics.

The first fact to be noted is that some overcrowding exists among almost all categories of size. It begins to be considerable, however, only for families of five or more. Overcrowding among families of two to four persons varies only between three and nine per cent of the total. Half of all families of six (i.e. mostly with four children) are overcrowded, and beyond this the situation worsens so rapidly that families of eight and more are overcrowded to the extent of more than ninety per cent. The conventional size of houses and flats, rarely containing more than three bedrooms, has a great deal to do with this, but inability to pay higher rents is of course another reason. In general, it is evident that the present housing supply being what it is, above-average families in particular are likely to have to live in dwellings too small for their size, and a great number of these in overcrowded conditions. An examination of the average in terms of size groups (Table 22) also makes this clear.

This analysis demonstrates the need for taking into consideration family size in determining the size of dwellings to be built after the war. The figures are substantial, for overcrowded families in Greater Montreal as a whole amounted to 24·3 per cent (practically the same as the proportion of 24·4 per cent in Montreal city alone). Applying this percentage to the total number of dwellings in Greater Montreal, suggests that in this area, probably the one of greatest need, there are about 60,000 dwellings which are too small to provide families with housing accommodation in proportion to their size. A belief that overcrowding is largely confined to Montreal because of the comparatively large families here would not be justified. A glance at Table 19 shows that overcrowding in Halifax, Sudbury, Fort William, Winnipeg and Edmonton is of

TABLE 22.—DISTRIBUTION OF HOUSEHOLDS BY ACCOMMODATION AND SIZE OF FAMILY, AND COMPARATIVE PREVALENCE OF OVERCROWDING, GREATER MONTREAL, 1941

Size of family and of dwelling	Average size	Overcrowding [1]
Rooms:	persons	% dwellings
1	2·4	100·0
2	2·8	42·6
3	3·0	24·9
4	3·6	24·0
5	4·4	25·1
6	5·2	23·5
7	5·5	19·7
8	5·8	17·0
9	5·6	8·8
10 and over	5·5	—
Total	4·3	24·3
Persons;	rooms	% families
2	4·0	3·5
3	4·7	2·8
4	5.1	9·2
5	5·4	30·4
6	5·5	50·4
7	5·7	77·0
8	5·8	94·0
9	6·0	94·3
10 and over	6·2	98·6
Total	4·95	24·3

[1] Number of families whose accommodation averages more than one person per room, as a percentage of the total.

dimensions proportionate to those of Montreal. Better catering for variations in family size is thus an essential factor for any efficient post-war building program all across Canada.

Substandard Housing

Overcrowding is only one of the aspects of deficient housing supply. The number of houses or dwellings which need to be replaced or rebuilt which should not properly be regarded as part of the existing supply satisfactorily meeting decent accommodation needs—depends on a variety of (mainly physical) factors which must be considered in combination. Overcrowding, at least indirectly, has a physical aspect, inasmuch as two or more families living in a house originally designed for one are likely to cause much more depreciation than would otherwise be the case. Overcrowding is also associated with substandard accommodation because overcrowding (as shown in the succeeding chapter) is so strongly a product of inadequate family income.

Depreciation of the Canadian housing supply has occurred in many areas. Not only in the physical sense of cracked walls, leaking roofs, rotten woodwork, neglected installations or interior decoration, but in terms of significant reductions in value. The causes have been not only the changing patterns of urban residential areas, described elsewhere (Appendix A), but also financial inability of landlords or owners to keep houses in proper maintenance and insure satisfactory rebuilding, particularly marked during the lean years of the 'thirties; more recently the handicaps to new residential construction and repair on account of prior war needs, have further added to the backlog of replacement and repair.

In surveys which have been taken in this country and elsewhere, various criteria have been used in defining, a substandard unit.[1] Caution is therefore needed in comparing results; and the limited character of overall or purely quantitive computations should be understood. It may be said at once that to determine the exact dimensions of the housing program needed to eliminate substandard dwellings within slum districts and blighted areas, and elsewhere, local surveys are needed for the majority of Canadian cities. The surveys to be taken should be based on a uniform and carefully worked out method of appraising housing conditions, and should be so designed that their results can be coordinated with the material on housing standards available from the most recent national Census of 1941.

There is no reason for believing that there are no techniques available permitting this to be done. Thus, a special Committee on the Hygiene of Housing attached to the American Public Health Association has recently designed such standards for application to quantitive factors and commented as follows on the need of local surveys:

"The dramatic slums of any community are likely to be well known in a general way, but this is not enough. Effective programs of control (or post-war rehousing on the scale generally anticipated) will require closer definition and measurement of substandard housing than is possible with present appraisal methods. Such definition and measurement is needed both to delimit the problem areas, to evaluate their deficiences, and to indicate whether a solution lies in the direction of law enforcement, demolition and rehousing, or ultimate conversion from residence to other uses. The standard city-wide survey technics are not designed to provide this type of information."

The method utilized by this Committee is a detailed rating scale by which appraisals could be made by the permanent inspection staffs of Health Departments and other city agencies concerned with housing and provides penalties for

[1] *Report of the Lieutenant-Governor's Committee* (Bruce Report), Toronto. 1934. *A Report on Housing and Slum Clearance for Montreal*, Montreal Board of Trade and the City Improvement League, Montreal. 1935. *Housing for the Low Wage-Earner*, Council of Social Agencies, Montreal. 1936. The last named sets out minimum health standards and minimum environmental requirements (Chapters II, III).

various deficiencies ranging from one to thirty points, depending on the seriousness of the conditions threatening health, safety, or essential livability. "Basic deficiencies," such as lack of inside toilets or totally inadequate fire escapes are counted separately as a kind of auxiliary scale.[1]

Among the main criteria of substandard dwellings which have been employed in most investigations are:—

(*a*) need of major repairs (external and internal);
(*b*) lack of basic facilities (electric light, flush toilet and bathing facilities);
(*c*) defective facilities (worn-out pipes);
(*d*) totally unsatisfactory building design or construction (completely inadequate fire escapes);
(*e*) infection with vermin;
(*f*) lack of the minimum interior space requirements or outside layout needed for healthy housing, and
(*g*) location in slum area.

Among these, the measurement most likely to be regarded as a matter of variable judgment is that of slum areas. Conceptions of what constitutes a slum or blighted area vary in different countries, and in Europe social conditions of the areas have often been made determining factors. Actually property conditions establish very definite yardsticks, and there is no doubt about the existence of slums, so gauged, in Canada. A slum area, on this basis, is one in which the majority of residential commercial and industrial buildings are in a delapidated state, with only a minimum of repairs, if any at all, being undertaken. It is an area where the value of buildings has reached such a low level that the land on which they are situated is apt to be more valuable than the structures, so that, in the eyes of the owners, any further repair expenditure means throwing good dollars after bad ones. Naturally, rents for buildings in slum areas are low, thus drawing the poorest sections of the city's population within their bounds. Once such a slum area has come into existence most frequently within the centre, but also on the outskirts of a city, it continues to grow, affecting houses situated in neighbouring districts. Middle-class families move out of these districts and home owners, in fear that further investment will not pay, neglect the proper upkeep of their houses or try to dispose of them at any price. Obviously, houses which have been acquired by second (or subsequent) owners at values much below original costs are likely to retain the status of "slum properties" from then on. The material secured in the Housing Census of 1941 is extensive enough in scope to permit direct measurement of several of the factors enumerated above. It is possible also by combination of some of them, to obtain a fairly reasonable estimate of the amount of substandard housing in urban Canada. Allowance for houses which are not in themselves seriously substandard, but are located in slum areas which should be razed may be made on the basis of United States experience on this point.

(*a*) *External Repairs.* The definition used in the Census resulted in the recording of all those premises which possessed one or more of the following defects:—(i) sagging or rotting foundations causing walls to crack or lean; (ii) shingled roof with shingles warped and missing; (iii) chimney cracked or with bricks missing, and (iv) unsafe outside steps or stairways. As Table 23 shows, 20 to 25 per cent is the most typical proportion of houses so affected,

[1] "A New Method for Measuring the Quality of Urban Housing," *American Journal of Public Health*, Vol. 33, No. 6. p. 729. 1943. Test surveys carried out to this scaling system showed dwellings in extreme slum sections incurring penalties of 200 points or more per unit with characteristic total scores for the neighbourhood environment running around 125 penalty points per block or street formation. ("An Appraisal Technique for Urban Problem Areas as a Basis for Housing Policy of Local Governments," *Public Health Reports*, February 27 and April 3, 1942. See also Reprint No. 2359, Committee on the Hygiene of Housing, 310 Cedar Street, New Haven, Conn.).

in the cities and towns of Canada. The overall urban proportion is 20 per cent, or one in five; but the proportion among the major cities as a whole is markedly less—one in six.

If these figures seem comparatively good, it must be remembered they do not include merely shabby exteriors, which may be badly in need of repainting, repairing, etc.; while since they refer only to the external criteria above mentioned which the census enumerator could observe himself, they do not include houses in need of major repairs which are only discernible from the inside. Whatever the extent to which the total measures the number of houses which should be replaced, there is little doubt that a sizeable volume of repair and improvement potentially exists here. All the urban dwellings involved total 284,000. It is noteworthy that a large share of the total (over 150,000) is located in the smaller towns, where it is quite probable that reconditioning rather than out-and-out replacement may have more place as an answer to at least the immediate housing problems of the near future.

TABLE 23.—DWELLINGS IN NEED OF EXTERNAL REPAIRS, OR LACKING PLUMBING FACILITIES IN THE MAJOR CANADIAN CITIES (POPULATION OVER 30,000) AND IN URBAN CANADA, 1941

Cities	Dwellings in need of external repairs		Dwellings lacking or with only shared use of			
			Flush toilet		Bathtub or shower	
	No.	P.C.	No.	P.C.	No.	P.C.
Halifax	3,203	23·7	2,379	17·6	3,690	27·3
Saint John	2,361	19·9	949	8·0	4,400	37·1
Montreal	26,054	13·1	7,160	3·6	32,020	16·1
Quebec	4,706	17·5	861	3·2	9,332	34·7
Verdun	1,186	7·4	64	0·4	497	3·1
Three Rivers	1,261	17·1	457	6·2	2,301	31·2
Sherbrooke	1,239	16·4	446	5·9	1,602	21·2
Hull	1,944	31·9	1,103	18·1	3,474	57·0
Outremont	560	8·1	48	0·7	76	1·1
Toronto	18,608	13·0	24,047	16·8	26,624	18·6
Hamilton	7,100	17·8	2,951	7·4	5,186	13·0
Ottawa	3,904	12·0	3,026	9·3	4,913	15·1
Windsor	5,677	22·5	1,715	6·8	2,851	11·3
London	4,186	20·7	2,123	10·5	3,640	18·0
Kitchener	2,074	24·5	914	10·8	1,422	16·8
Sudbury	1,605	22·5	2,432	34·1	3,459	48·5
Brantford	2,136	26·1	1,007	12·3	2,061	25·2
Fort William	1,615	25·4	1,139	17·9	2,168	34·1
St. Catharines	1,288	17·3	640	8·6	968	13·0
Kingston	1,269	19·4	805	12·3	1,289	19·7
Winnipeg	10,674	21·8	7,100	14·5	11,947	24·4
Edmonton	5,724	24·8	6,694	29·0	8,240	35·7
Calgary	4,372	20·1	4,350	20·0	5,307	24·4
Regina	2,558	19·7	3,804	29·3	4,661	35·9
Saskatoon	2,070	20·0	3,759	36·3	4,368	42·2
Vancouver	12,943	18·2	6,898	9·7	9,600	13·3
Victoria	1,913	16·7	1,088	9·5	1,719	13·0
Combined 27 cities	132,230	16·5	87,959	11·0	157,816	19·7
Cities with population under 30,000	151,778	24·7	193,155	31·4	270,417	44·0
Total urban	284,008	20·1	281,114	19·9	428,233	36·3

Source: Bulletin HF-1, Dominion Bureau of Statistics, Census, 1941, and Preliminary Housing Bulletins 1-27, Housing Census, 1941. The number of dwellings in need of external repairs, without or shared use of flush toilets and bathing facilities has been estimated by applying the percentages obtained from the sample figures of the Housing Census, 1941, to the total number of occupied dwellings.

Montreal, Toronto, Vancouver and Winnipeg, as might be expected, offer the largest scope for improvement programs. The degree of substandard housing, measured by this rather limited criterion, is practically equal (about 13 per cent) in Montreal and Toronto proper but differs in the outer areas (11·8 and 15·7 per cent respectively). Including these, the estimate of dwellings in need of major repairs is around 30,000 in Greater Montreal, and 37,000 in Greater Toronto. It is clear from Table 23 that a few cities are exceptional in one direction or the other. Hull, for example, has the unenviable record of a greater proportion of disrepair than any other city in Canada; on the other hand, Verdun, though a distinctly low-rental area, is comparatively new and almost entirely brick-built, with as high a proportion of satisfactory external repair as the well-to-do city of Outrement. These examples, however, are also reminders that similar ranges could be found between particular districts within the larger cities if they were singled out.

(*b*) *Toilet and Bathing Facilities.* The evidence of substandard conditions becomes clearer when the preceding figures are coupled with those relating to elementary plumbing facilities. The large number of old houses lacking modern conveniences indicates that replacement or rebuilding has not gone as far as it should in the major cities. There is statistical evidence that lack of modern conveniences is also common in some of the new fringe areas. Nearly one in five of all dwellings in urban Canada either lack completely or provide only shared use of flush toilets. This is a comparatively high proportion, involving 281,000 dwelling units. It is much more common in the smaller cities and towns, which account for about two-thirds of the total.

A larger proportion—over 30 per cent—of all urban dwellings were deficient in bathing facilities, but this again is more characteristic of the small towns than of the larger cities. In the latter, however, there is still need for installation of baths (or showers) in one out of every five dwellings to assure exclusive use of the occupying families. Put in another way there is a possible program for the equipment of 428,000 units, of which over one-third would be needed in the principal Canadian cities. This figure of course does not take into account replacements for worn-out installations; it also assumes that the houses concerned are in other respects satisfactory, i.e., actually many of the new units should come into the current supply as part of the equipment of completely new houses.

On the same basis, there is a large market for the installation of flush toilets, over 24,000 being required in Toronto city alone, this number of dwellings being without them or sharing them with other families. The market for bathtubs or showers is largest in Montreal city, where over 32,000 dwellings are without or only share bathing facilities. These figures have to be adjusted upwards by at least one-third if they are to include the number of dwellings in the suburban areas of these two cities.

(*c*) *Other Facilities and Conveniences.* Most of the urban dwellings in Canada are equipped with electric light. Only 3·4 per cent of all dwellings lack electric light and use gas (0·3 per cent) or kerosene or gasoline (3·1 per cent). In the major cities, practically all dwellings are equipped with electric lights, the few houses without electricity being exceptions in the small cities and towns. Equally, almost all urban homes (99 per cent) in the major cities have running water. The picture with regard to other facilities was less uniform. The great regional variation in the percentages of homes with flush toilets and bathing facilities is noticeable in Table 23. Similarly the proportion of homes with modern heating systems varies widely; in the Maritimes and Quebec, stoves are still commonly used, while furnace heating is more general elsewhere.

The proportion of homes heated by furnace ranges as widely as 16 to 94 per cent amongst the cities of Quebec, but only from 70 to 95 per cent for most cities in Ontario; among the Prairie cities it ranges from 72 to 84 per cent. Methods of cooking varied equally widely. With some exceptions, it appeared that where stoves are used for heating, smaller proportions of households cook by gas or electricity than where heating is done by furnace. However, larger proportions of homes in the two central provinces depend on gas or electricity for cooking than are heated by furnaces; while in the other provinces, fewer homes use gas or electricity for cooking than are furnace heated. The proportions of homes equipped with ice or mechanical refrigeration varies very widely indeed and without any general regional correlation.

(*d*) *Substandard Housing Requiring Replacement.* The dimensions of a housing program appropriate to the post-war period, for the purpose of replacing obsolete dwellings and eradicating slum districts in the major urban centres is examined in detail in a later section. It is helpful, however, to conclude this review of primary facts with a first approximation of the number of houses requiring replacement, on grounds of physical or environmental inadequacy, i.e., that part of the "backlog" which has to be made up apart altogether from the supply needed to fill the gap between current (and future) needs and existing supply. It is desirable, in so doing, to distinguish between the larger cities and towns and the smaller ones (the dividing line of 30,000 being taken here as elsewhere).

Two considerations have to be taken into account. On the one hand, not every substandard dwelling has to be replaced because of physical defects; in a number of cases, it may be possible to bring these houses up to a minimum standard by repairs, improvements and new installations; on the other hand there are houses with no apparent major physical defect and, therefore, not enumerated in the statistics available, which nevertheless are not able to meet a proper living standard because they are situated in slum districts or blighted areas. They must accordingly be included among those dwellings which, given an adequate national program, should be demolished and replaced by others.

Various combinations may be made of the indexes of deficiency which have been outlined above; two of the most indicative are given in Table 24. A comparatively restricted test based on both exterior and interior deficiencies is to take all dwellings in need either of external repairs or of flush toilets. (It appears that only a small percentage would lack both.) Just short of 196,000 dwellings fall within this definition in the major cities, or somewhat over 200,000 so far as information can be assembled for the twelve metropolitan areas. This represents a proportion of 24 per cent. The variation among cities is very great, and some of it shows them in a worse light than they really are. On the fringe of the smaller cities, particularly in the Prairie Provinces, there are a number of small but well-constructed homes of the cottage or bungalow type which are well kept and with plenty of land, their only deficiency being the lack of plumbing of any kind. Home-improvement rather than rebuilding programs may be sufficient for this proportion; but it is altogether probable that a reduction by one-half (i.e., to 12 per cent) gives a just estimate of the proportion of existing dwellings which should be earmarked for replacement rather than renovation.

If the range is widened by accepting as criterion one or more of three defects, namely, external structural faults, lack of flush toilet, or lack of bathroom, the proportion (for the major cities) rises from 24 to 31, and the figures for some cities, considerably more, percentages of over 40 and 50 being fairly frequent.

It is not necessary to assume that all of the 256,000 dwellings thus delimited are ripe for replacement, to bring to light a substantial volume of substandard accommodation. Even when it is assumed that only half of the dwellings within the scope of the above definition (dwellings in need of repairs and/or lacking or with only shared use flush toilets) are substandard on this and other counts, this gives a total of about 100,000. However, allowance must also be made for the houses not comprised within these measurements whose habitability is destroyed by location in slum areas which are beyond redemption. A study of rehabilitated areas in 22 cities in the United States, conducted by the Federal Housing Authority in recent years, demonstrates that a net addition of between 25 and 50 per cent to figures elicited from computations such as have been made above, is quite reasonable in order to take account of slum properties.[1] Taking only the lower of these limits for Canadian urban areas, it would result in a total of 125,000 units as the minimum estimate of the substandard backlog in the principal Canadian cities.

TABLE 24.—SUBSTANDARD DWELLINGS IN THE MAJOR CANADIAN CITIES (POPULATION OVER 30,000), 1941

Cities	Dwellings in need of external repairs and/or lacking or with only shared use of flush toilets		Dwellings in need of external repairs and/or lacking or with shared use of flush toilets and bathing facilities	
	No.	P. C.	No.	P. C.
Halifax	4,614	34	5,836	43
Saint John	2,877	24	5,515	46
Montreal	32,222	16	54,375	27
Quebec	5,164	19	12,230	45
Verdun	1,290	8	1,773	11
Three Rivers	1,566	21	3,207	43
Sherbrooke	1,457	19	2,377	31
Hull	2,387	39	4,101	67
Outremont	628	9	768	11
Toronto	37,858	26	42,226	29
Hamilton	9,261	23	11,275	28
Ottawa	6,214	19	8,176	25
Windsor	6,615	26	7,887	31
London	5,573	27	6,811	33
Kitchener	2,554	30	3,151	37
Sudbury	3,401	46	4,214	57
Brantford	2,713	33	3,782	46
Fort William	2,419	38	3,120	49
St. Catharines	1,503	20	2,104	28
Kingston	1,793	27	2,191	33
Winnipeg	15,346	31	17,821	36
Edmonton	10,318	44	10,787	46
Calgary	7,426	34	8,300	38
Regina	4,964	38	6,618	43
Saskatoon	4,847	46	5,374	51
Vancouver	18,121	25	19,571	27
Victoria	2,792	24	3,025	26
Combined 27 cities	195,923	24	255,615	31

Source: Special compilation by courtesy of the Housing Census Branch, Dominion Bureau of Statistics.

[1] The nature of these studies, as well as the estimates here summarized, are described in more detail in Statistical Note E and Chapter 6.

The smaller towns and cities are admittedly harder to assess, as there is room for the belief that seriously blighted areas are proportionately smaller than in the large cities, though slum properties are by no means absent. A combination of the three criteria results in a proportion of over 50 per cent, which can hardly be considered as useful for assessing minimum requirements of the replacement program for smaller cities and towns. External repair needs alone account for about 25 per cent, or nearly 150,000 dwellings. If only one-third of these are seriously defective, and no addition at all is made for blight and slum conditions, there is a likelihood of at least 50,000 units being required on replacement account for the smaller centres, as well as the 125,000 in the larger cities. This adds up to a total of 175,000 units for re-building before it will be possible to say in the post-war years that net expansion in new and satisfactory standard housing has been begun.[1]

[1] Allowance is made for substandard dwellings in the non-incorporated communities which form part of the metropolitan areas when total needs of the "larger urban areas" are brought together. (See Chapter 6).

CHAPTER 5

INCOMES, RENTALS, AND COSTS OF OWNERSHIP

There is a concensus of opinion among all those who have considered the housing problem comprehensively that (confining attention for the moment to urban areas) three broad income divisions distinguish themselves in most communities, and establish the need for three distinctive approaches to policy. This was agreed upon in the earliest deliberations of a panel of the Subcommittee on Publicly-Financed Construction Projects which first gave specific attention to housing, it is appropriate to quote directly from their report.

"For housing purposes there are broadly three (urban) groups into which the population divides:—

1. Group A includes (*a*) the wealthy who need no aid at all; (*b*) various middle groups who may need some assistance in financing the purchase of homes, but are normally able to complete three purchases; or are able to pay an economic rent as tenants. House builders under Part I of the National Housing Act are confined almost entirely to families within this group.

2. Group B includes wage earners and others with moderate incomes and reasonable stability of employment who none the less are not able to afford rents of higher levels than roughly $20 to $35 a month in the main urban areas. If they have to pay more (as they frequently do) other items in their living budget may suffer; if there are not enough houses of a decent standard at this rent level they may be forced to live in unsatisfactory areas in order to secure accommodation sufficiently cheaply. It is these groups for whom Part II was mainly designed.

3. There is still a third group (ignoring for the moment rural housing altogether) for whom even potential provision was not made in the Housing Act. There are various dependent under-employed, or indigent groups not able to pay even an 'assisted' economic rent. It is important that they be not ignored. Even if a substantial building program provided better housing for the bulk of wage-earner groups the 'submerged tenth' (or whatever the proportion actually is) would perpetuate a market for the most deteriorated and slum-like areas—either in the blighted interior areas of cities or on the 'shack town' fringes. Obviously consideration of these groups is also implicated in any program of slum clearance—another matter not very specifically provided for in the National Housing Act (at least so far as federal authority is concerned)."

In this chapter the principal materials on income factors are assembled, as they apply first to tenants and then to owners.

I. Rental Housing

It is a prime necessity for proper understanding of the problem to obtain reasonably representative measurements of the essential income situation in the principal cities of Canada. On this situation depends the rentals which can be paid and how far alternative schemes can be planned with any expectation of success. Fortunately the census for 1941 included a carefully organized special census of housing accommodation throughout the Dominion on a sample basis (one in ten). Thanks to the courteous collaboration of the Dominion Bureau of Statistics it has been possible to devise a method of examining the facts most relevant for the population groups where there is most doubt as to their ability to participate in home ownership programs, or the extent to which subsidized programs are necessary if accommodations within the financial means of the families is to be assured.

3061—8½

Broadly speaking it is the wage-earner of the cities—using this term in the wide sense, including white-collar as well as manual workers—for whom the need of public housing must be most clearly assessed. It was considered better procedure, however, to separate all tenant families as the measured group, i.e., excluding all families (whether their heads are wage-earners or non-wage-earners) who own their homes or are in process of completing purchase. Among these, actually 70 per cent of the total (representing 370,000 families) proved to be families whose heads were of employee status. A method of dividing this population was adopted which as is further explained below, is merely neutral or mechanical so far as income strata are concerned; but which in practice proves to be a significant division in these terms. In order that the nature of the compilation should be fully understood before any conclusions are drawn the principal matters of definition are summarized below.

Principal metropolitan areas. The fact that Canada has for more than two decades been more urban than rural has already been referred to. What is of more direct import for housing policy is the proportion of the population which lives in the main city or metropolitan areas of the country. Most studies of the subject single out twelve Canadian cities as including with their immediate satellite areas the larger city aggregates, or what for convenience may be called the metropolitan population. In 1941 this totalled 3,715,000, and it represents sixty per cent of all urban Canada. It is important to add the reminder here, particularly for centres like Montreal, Toronto, Windsor, etc., that the computation has been deliberately extended beyond the boundaries of the cities proper. The significance of the outer fringes in the future planning of housing programs is referred to at other points in this report.

Tenant families. In the metropolitan aggregate, here separated out for examination, there were in 1941 some 834,000 dwellings. The number of these occupied on a rental basis proved to be about 530,000, or just short of two-thirds (63·6 per cent) of the total. It is very necessary in such a measure as the present one to avoid the complication introduced into housing matters by single-person-households and households with lodgers and lodging families. The figures in this chapter refer to households of two or more persons, including families with or without children and other groups of persons, whether related by ties of kinship or not, living in a common household. Doubled-up families were specifically excluded. By restricting the measurement to those groups, it was possible to obtain a clear-cut relationship between family earnings, size of family and size of dwelling. In cases where the dwelling was occupied by a non-family group, family earnings were taken to consist of the sum total of earnings of all members living in a common household.[1] It must be remembered, however, that a considerable proportion of housing occupancy is constituted by younger married couples. The average size of *completed* families is a good deal higher but since adults move out and establish their own families in the course of time the large completed family all under one roof, particularly in the cities, is exceptional. (Some figures on distribution of families by size are examined elsewhere.) It is also true, of course, that there are sizeable regional variations. The twelve main cities of Canada thus show that the typical averages vary between 3·5 and 4·5. One city, Victoria, with an average of 2·9, is clearly exceptional. (See Table 31.)

The tenant households here covered do not include all the wage-earners of the country and they exclude some wage-earners who live in owned homes, or who are purchasing their properties. But they obviously comprise within their ranks the bulk of the urban group in Canada for whom low-rent housing programs have to be considered. Some low-rent housing undoubtedly has a place in

[1] It is of interest to note that the average size of these households proved to be relatively small, only 4·0. In other words, so far as households were occupied by "private" families, (parents and children living together) the most typical family included two children.

many of the smaller industrial cities and towns; and there may be some adaptations necessary for rural areas. But there is no question that the principal problems of congestion, slums, deteriorated or otherwise undesirable housing on the cheaper levels are in the main cities.

Measurement of income. The data available include only receipts from wages or salaries and not other sources of income such as pensions, annuities, unemployment benefits or relief. With this qualification, the figures relate to family income, and not merely to earnings of the father or principal breadwinner. Since households with lodgers and sub-tenant families are excluded, supplementary income from rented rooms does not affect the computation presented here. Families of wage-earner heads reporting no earnings (e.g. a married son working for his father without pay) are also excluded in order to avoid biasing the earnings average in a downward direction.

Rentals. Rent was defined for the purpose of the census enumeration as all expenditures required for shelter. This means that the rent figure sometimes includes allowances for heating where this is supplied by the landlord. On the other hand, many types of housing occupied by tenants in low-income groups are not heated by the landlords, so that the tenants must incur additional outlay for fuel.[1] Some of the rents include small proportions allocated to water taxes and perhaps repairs. But it is a fair assumption that on balance the figures recorded give sustantially accurate averages of primary rental costs. Expenditure for electricity, gas and telephone, all of which are normally borne by the tenant himself, and paid for through separate accounts, are excluded in the census enumeration.

Division into groups. The method of separation adopted was simply to divide the tenant population, when ranked by family income, into three equal sections. This was done separately for each city. The result is to show the income and rental situation not by income classes deliberately so defined, but within the lower third of tenant population, and the middle third. (No tabulations were made of the upper third.) This procedure has the advantage of not prejudging the issue, by revealing whether or not there is a definable central tendency as to income levels. It also takes account of the realistic consideration, important for all housing appraisals, that income and rental patterns vary in different parts of the country.[2] Whether these are to be interpreted as cause and effect, or something of each, in the actual housing conditions of the cities, they must be reckoned with in designing actual programs, and as indicating the degree of flexibility which may have to be allowed for in the standard legislation.

Taken as a whole, the figures give the basic housing situation for two strata of the metropolitan population, each of these comprising about 177,000 families. It is convenient to refer to these as the low-income group and medium-income group respectively. As will be shown, in spite of regional differences, it is possible to characterize the income and rental determinants involved in each group in fairly definite terms.

Applicability of the figures to the present or postwar situation. Since the figures are on the basis of a one-in-ten sample, they have been multiplied out to give the probable total numbers, and round numbers are used wherever

[1] In the combined 12 metropolitan areas only 27 per cent of all dwellings were heated by the landlord. It is a safe assumption that this proportion is considerably lower for dwellings occupied by families in the low income group.

[2] Significant information on the plight of tenant families with low incomes is available in the recent report of the City Council's Survey Committee on Housing Conditions in Toronto, 1942-1943. Although the methods and definitions used in the Toronto study differ in a number of aspects (e.g. income boundaries, definition of family income, etc.) from the investigation on the housing situation of low and medium income group tenant families in large urban centres, presented here, both inquiries led to the conclusion that most of the unsatisfactory housing conditions in Canadian cities are due to the lack of provisions to supply decent shelter for families with low incomes.

summary references are appropriate. What is more important is that the figures relate only to 1941; though some changes due to the war had already taken effect by this time, they have been intensified since. The implications of wartime population and industrial changes are considered separately in another section. So far as incomes are concerned, it may be reasonable to assume that there has been some increase in family incomes more particularly at the lower levels (most frequently due to further members of the family being employed). On the other hand, in the immediate postwar years it may be realistic for housing calculations at least to assume that employment will not be so full as at present; so that 1941 conditions may be more representative than at first appears. As is indicated, however, it is the general tenor of the conclusions which is significant; an upward adjustment of income levels may be made on various assumptions without dispelling the essential problems.

Basic Income Situation among Tenants

Lower third. Taking first the lower-third group, a fairly wide range of difference is revealed in the average family earnings characteristic of the main cities, but the coincidence of the upper level of income is notable. For the twelve metropolitan areas as a whole, $1,200 a year is the representative upper limit of earnings among this section of tenant families. In city terms, it is more accurately descriptive to say that it varies between $1,000 and $1,200. It is considerably higher in one area only, Windsor, where it would seem that the automobile industry spreads its working personnel widely among the population.[1]

The most striking fact is that average family income (from wages) among one-third of all metropolitan tenants is only a little over $700 (See Table 25). In three cities it is substantially higher than this average, but in six cities actually lower. Some allowance should doubtless be made for differences in costs of living. So far as these vary in the same direction as wages, the regional differences in terms of purchasing power are less unequal than may at first appear. The net showing, however, is clearly that, even if some supplements to income exist which are not here recorded, the situation which housing legislation must meet is a serious one.

Desirable minimum income levels have been examined in general terms in the Report on Social Security. For a more or less representative family of five persons the assistance or subsistence minimum for the bare essentials of healthy living requires an annual income of $1,135, assuming urban conditions comparable to those of Toronto.[2] As the figures of Table 25 indicate, some downward adjustments from this level may be applied in some cities; and the nature and also the limitations of other possible adjustments are considered further at one place (Appendix VI) in the Social Security Report. What is important is that none of these adjustments are of dimensions sufficient to remove the main problem—that incomes in this sector of the population are too low for even moderate rents to be paid without some threat to nutritional and other demands on the budget; or, alternatively, that the rentals which must be set for new housing designed for these groups are a challenge to housing finance. In general, it is not fully realized how large a proportion of the people living in our cities are so near the margin, or actually below it. It is obvious that a housing program which ignores the special conditions of this section will fail to meet the most pressing part of the urban problem.

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[1] It does not necessarily follow that workers in the lower third are unskilled. They are a greater proportion of the total urban population in this area than in other cities. On the other hand, however, wage rates are probably raised in some degree by the proximity of higher monetary rates across the border in Detroit.

[2] Marsh, L.C., *Report on Social Security for Canada,* Advisory Committee on Reconstruction, Ottawa, 1943, p. 21.

TABLE 25.—INCOME BOUNDARIES AND AVERAGE ANNUAL EARNINGS OF WAGE-EARNER TENANT FAMILIES IN THE LOW-INCOME GROUP, PRINCIPAL METROPOLITAN AREAS, 1941

Metropolitan areas	Upper boundaries of groups	Average annual family earnings
Halifax	$1100	$735
Saint John	1000	579
Quebec	1000	612
Montreal	1200	652
Ottawa	1200	760
Toronto	1200	826
Hamilton	1200	866
London	1100	775
Windsor	1400	943
Winnipeg	1000	614
Vancouver	1000	574
Victoria	1100	701
Combined 12 metropolitan areas	1100	703

It does not follow that the whole of this lower third of city families is a "submerged third". In practice much will depend on such factors as regularity of employment, the number of earning members of the family, and the number of dependent children. It is a fair assumption that half of the families within this section will be submarginal, not merely on housing account, but on others. Whether or not separate measurements should be considered for two parts of the lowest income group in the cities on this basis (i.e., broadly, distinguishing between a dependent, poverty, or slum group and a low-income group which could still be barely self-supporting if rentals are sufficiently low), is a matter for further consideration. The facts are so important that they are analyzed further in Table 26. This shows more specifically (by reference to the $1,000-$1,199 column) that, even allowing for extra sources of income which are unrecorded, in no city may it be assumed that more than forty per cent of the families in this lower third of the total have an income sufficient for bare maintenance. Ten to twenty per cent would be more representative for most cities, and in one case only three per cent is suggested by existing statistics. (See Table 26.)

TABLE 26.—FAMILY EARNINGS DISTRIBUTION OF WAGE-EARNER TENANTS IN THE LOW-INCOME GROUP, PRINCIPAL METROPOLITAN AREAS, 1941

Metropolitan areas	$499 or less	$500-$999	$1000-$1199	$1200 or more
	%	%	%	%
Halifax	15·2	56·3	28·5	—
Saint John	27·8	69·2	3·0	—
Quebec	28·6	60·0	11·4	—
Montreal	25·8	57·9	14·1	2·2
Ottawa	21·7	41·8	20·6	15·9
Toronto	4·5	45·5	35·3	14·7
Hamilton	12·7	32·9	38·6	15·8
London	16·8	42·1	41·1	—
Windsor	11·2	30·1	18·4	40·3
Winnipeg	32·6	49·4	18·0	—
Vancouver	33·5	55·0	11·5	—
Victoria	21·7	50·0	28·3	—
Combined 12 metropolitan areas	21·2	52·0	20·2	6·6

Middle third. Extension to include two-thirds of all tenant families has the effect of raising the income limit to about $2,000 (see Table 27). This means, however, that an income of $1,400, and a good deal less in some cities,

is the most typical; while (as Table 28 shows), sixty per cent of all the tenant families in this sector have incomes below $1,500. Exceptions presented by Ottawa, Windsor and Toronto are very marked. (See Figure 5.)

TABLE 27.—EARNING BOUNDARIES AND AVERAGE ANNUAL EARNINGS OF WAGE-EARNER TENANT FAMILIES IN THE MEDIUM INCOME GROUP, IN PRINCIPAL METROPOLITAN AREAS, 1941

Metropolitan areas	Boundaries of middle earning groups	Average annual family earnings
Halifax	$1101—1700	$1371
Saint John	1001—1500	1169
Quebec	1001—1500	1228
Montreal	1201—2000	1323
Ottawa	1201—2000	1558
Toronto	1201—2000	1549
Hamilton	1201—1800	1482
London	1101—1700	1359
Windsor	1401—1900	1667
Winnipeg	1001—1800	1354
Vancouver	1001—1800	1287
Victoria	1101—1600	1294
Combined 12 Metropolitan areas	1200—1800	1389

TABLE 28.—FAMILY EARNINGS DISTRIBUTION OF WAGE-EARNER TENANTS IN THE MEDIUM INCOME GROUP, IN PRINCIPAL METROPOLITAN AREAS, 1941

Metropolitan areas	$1499 or less	$1500-$1799	$1800-$1999	$2000 or more
	%	%	%	%
Halifax	62·9	37·1	—	—
Saint John	96·0	4·0	—	—
Quebec	84·6	15·4	—	—
Montreal	69·9	26·2	2·5	1·4
Ottawa	38·3	27·9	16·9	16·9
Toronto	34·8	44·1	18·8	2·3
Hamilton	42·2	54·2	3·6	—
London	66·2	33·8	—	—
Windsor	6·0	58·2	35·8	—
Winnipeg	70·3	22·2	7·5	—
Vancouver	76·9	18·5	4·6	—
Victoria	78·5	21·5	—	—
Total 12 Metropolitan areas	59·9	30·5	7·7	1·9

The qualification to be considered in relation to this group is that there are a fair number of tenants within this income range who are not of wage-earning status. It should be noted also that there is a wider variety of income levels among this section of the population than in the lower third. Even so the central tendency of the upper and lower income boundaries is sufficiently well defined to throw light on the conditions a housing program must meet. These can be presented more clearly in terms of rental, below.

Upper third. Tenant families who can be reasonably well accommodated if their housing costs fit into a budget of $1,800 a year, are almost entirely confined to the upper third of all families at present living in rented dwellings. No attempt is made to deduce from the present data how large a proportion of this upper third should be regarded as candidates for home ownership; nor is there any indication, of course, as to whether they are tenants from choice or necessity. It is important to have some conception of the actual points at which the assisted housing section of the population overlaps with the population not necessarily in need of assistance for rental purposes. But the main concern of the present material is to clarify the requirements of assisted rental housing.

Rental Situation: Low-Income Group

It is a standard of common acceptance that the average family particularly at the low levels of income, should not have to devote more than one-fifth of their budget to rent. This is supported as a desirable maximum ratio by most authorities on the subject of low-rental housing, and also secures substantial confirmation from various studies on family income and expenditure in Great Britain, United States and Canada.

For the purpose of applying the present statistics directly to the problem of housing needs, comparisons have been applied between the rents actually paid and the rent which would be in operation if it were in fact one-fifth of the family income. It is convenient to refer to this latter as the "proportionate rent".

There is no need to insist that this yardstick be applied with minute exactness. It should not be necessary to argue that at budget levels of $100 a month or less there is a severely practical limit to rents which are economic or desirable. If families have to pay more for rent than they can afford they will be forced to spend less on other essentials of life such as food and clothing. In other words, at these levels—and their importance in numerical terms is brought out clearly by figures of the type here assembled—the attainment of minimum nutritional standards, welfare and general health conditions, are interrelated with housing supply and the adequacy of housing accommodation. It must be remembered that an excessive rent may be paid not alone because enough suitable housing at the appropriate rents is unavailable, but because dwellings which do rent at prices within the family budget are so deteriorated or in such undesirable districts that they are shunned by the more self-respecting tenants. It is the proper interpretation of this index, rather than the merely statistical result, which is important. When used as a gauge it helps to clarify some of the statistics of the urban housing situation which are fundamental for proper planning and successful legislation.

Superficially, it might seem from some enquiries that income and rental adjustments have already been fairly well brought about. The best available Canadian study of family income and expenditures, which relates to urban wage-earner families, shows that expenditure for shelter varies between 16·9 per cent (Charlottetown) and 23·3 per cent (Ottawa) of the total living expenditures, the average family spending 19·2 per cent of their total outlay on shelter.[1]

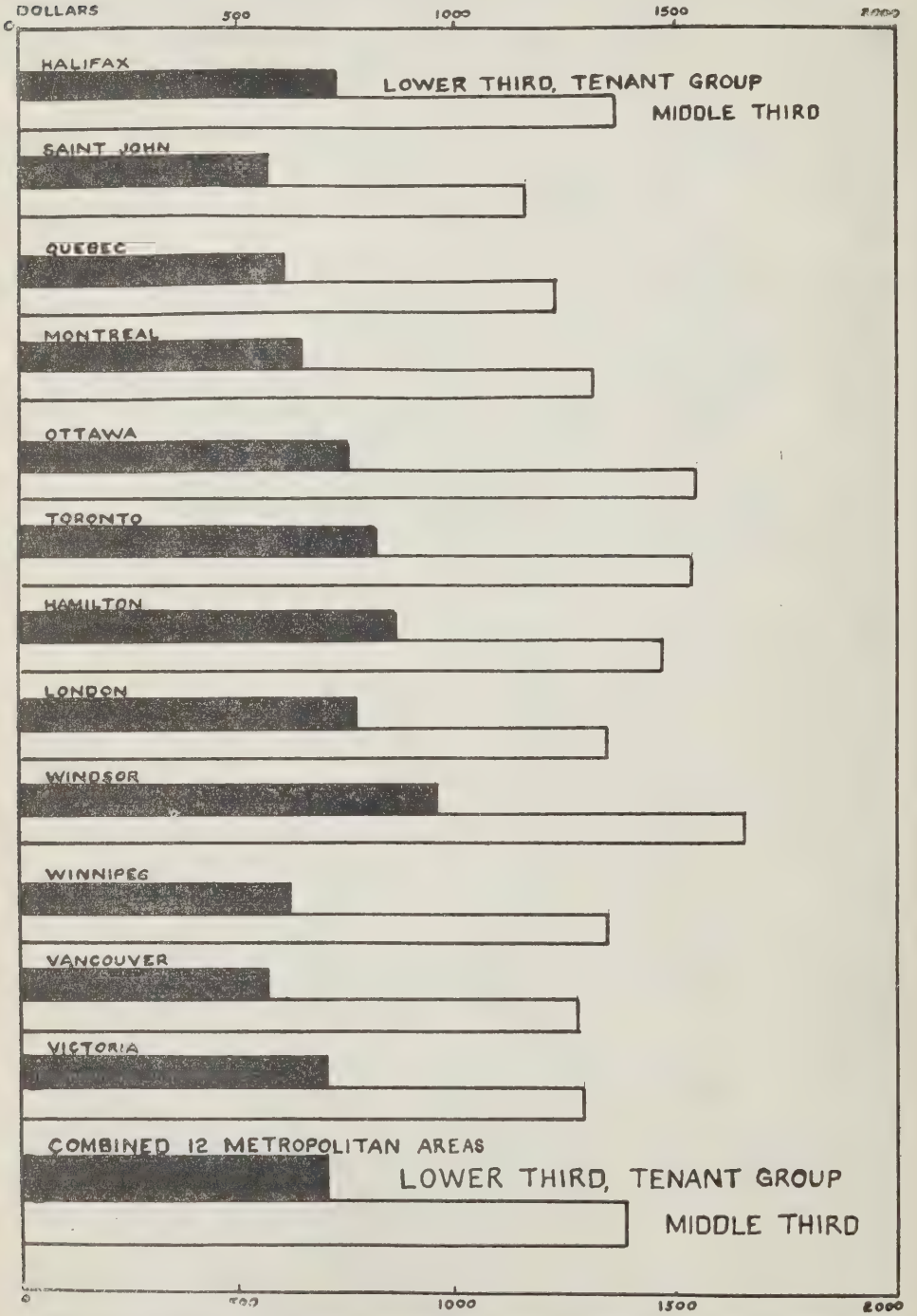
It would be a mistake, however, to assume that these figures alone indicate the whole rent situation to be satisfactory. In part the average is brought down by the lower proportion of income paid for rent by higher-income groups. At a low level of income a small increase of rent (or a small decline of income) is of very great significance for the family budget. A difference of $5 a month may mean that the family has to get along without some of the necessities of life, or to reduce its expenditures on food or clothing. It is necessary to consider the range of actual income and rental distribution, as some of the following figures make clear.

Translating incomes into rent-paying capacity on this standard basis produces a highly important average figure which must enter into all the calculations of low-rental housing really worthy of the name. A proportionate or desirable rent, that is a rent which families can afford to pay without overstraining their budget, amounts for the lower third of all tenant families in the twelve main cities in Canada, to about $12 per month. For at least five cities a smaller figure than this is indicated, and $14-$15 is exceptional. The most typical rents actually paid by families within this stratum are $17-$20 (See Table 29).

[1] Dominion Bureau of Statistics, *"Family Income and Expenditure in Canada,* 1937-1938", p. 71. Ottawa, 1941. Wage-earners of British origin living in Montreal spent 17·9 per cent of their income for rent as against 19·4 per cent for Canadians of French origin. In Toronto, wage-earner families spent 20·5 per cent of their living expenditures for rent.

FIGURE 5

ANNUAL AVERAGE EARNINGS OF TENANT FAMILIES, BY INCOME GROUPS. METROPOLITAN AREAS. 1941



This chart shows, for the twelve metropolitan areas of Canada, the annual average earnings of wage-earner tenant families in the low and medium income groups. (For definition of these groups, see text.) Special compilation by courtesy of the Housing Census Branch of the Dominion Bureau of Statistics.

TABLE 29.—PROPORTIONATE RENT AND ACTUAL RENT PAID BY WAGE-EARNER TENANT FAMILIES IN THE LOW-INCOME GROUP, PRINCIPAL METROPOLITAN AREAS, 1941

Metropolitan areas	Proportionate monthly (desirable) rent.	Actual monthly rent (1)	Deviation of actual rent from proportionate rent.
	$	$	$
Halifax	12·25	18	5·75
Saint John	9·65	14	4·35
Quebec	10·20	17	6·80
Montreal	10·87	17	6·13
Ottawa	12·67	19	6·33
Toronto	13·77	25	11·23
Hamilton	14·43	21	6·57
London	12·92	20	7·08
Windsor	15·72	21	5·28
Winnipeg	10·23	18	7·77
Vancouver	9·57	18	8·43
Victoria	11·68	19	7·32
Combined 12 Metropolitan areas	11·72	19	7·28

(1) Rounded to the nearest dollar.

Taken at their face value, these indicate an average discrepancy of $6 or $7 a month in most cities, or an excessive burden on the rent budget of the order of 50 per cent. Even if it is assumed that the incomes actually returned in the census schedules are something of an understatement, it is evident that a figure of something like $12.50 a month is the goal at which low-rent housing programs must be directed if they are to meet the facts of the situation. Some variations in differentials of local costs of living, costs of construction or the differences in size of family may be necessary. But the import of these figures may perhaps best be expressed in the fact that no new housing has yet been provided by any public authority in Canada on a national scale, conditioned to such levels of rent.

One aspect of these figures, of course, is that they constitute a challenge to the building industry—or perhaps to a combination of public and private action—to reduce building costs. Whether costs can be actually reduced to the point of making such rentals economic is, of course, one of the questions for the future. Looking to the past, it is relevant to point out that these figures explain a good deal of present slum creation and lack of maintenance or improvement in the blighted areas of the cities. If the original value of the properties concerned was substantially higher, low rents may not be sufficient to permit adequate maintenance. Certainly there is no adequate supply of comparatively reasonable houses for this section of the population. The result is, that in all cities, almost without exception, a substantial proportion of families depend entirely on "second-hand" housing. Usually there is no guarantee in existing town planning provisions against deterioration under such conditions.

Pursuing further the review of actual rents paid and their relation to desirable or proportionate rent, $20 a month may be taken provisionally as a bench-mark. As information assembled below shows, it is actually too conservative but it provides a convenient boundary. On this basis, nearly 40 per cent of the tenant families in the low-wage group at present pay more than they can afford. Nearly one-third of them pay rents of between $20 and $35; though this range includes the more typical rents of working-class districts, the proportion of tenants within it varies very considerably between the twelve main cities of Canada. None the less, these figures are significant in showing the proportions of wage-earner tenants who would be satisfactorily accom-

modated if it were possible to provide new housing renting at $20 a month. Only in Toronto, London and Windsor would this provide for half of the population in this group.

The contrast between the rental measurement and (using $20 as a gauge) a computation related to actual earnings in each case is instructive. Allowing not $20 but one-fifth of their normal budget, the percentage of families paying

TABLE 30.—DISTRIBUTION OF RENT CLASSES, AND PERCENTAGE OF FAMILIES PAYING DISPROPORTIONATE RENT, LOW-INCOME GROUP, PRINCIPAL METROPOLITAN AREAS, 1941

Metropolitan areas	Rent class			Percentage of families paying disproportionate rent
	Under $20	$20–$34	$35 or more	
Halifax	62·6	29·0	8·4	66·5
Saint John	85·6	12·9	1·5	81·8
Quebec	72·4	25·2	2·4	89·5
Montreal	75·8	21·0	3·2	90·4
Ottawa	50·6	36·2	13·2	86·0
Toronto	28·9	55·3	15·8	91·4
Hamilton	48·1	44·3	7·6	83·0
London	46·2	49·0	4·8	89·3
Windsor	40·2	56·4	3·4	75·3
Winnipeg	64·7	28·0	7·3	92·0
Vancouver	60·9	32·9	6·2	88·5
Victoria	55·6	34·3	10·1	79·2
Combined 12 Metropolitan areas	60·6	32·6	6·8	88·7

FIGURE 6

FAMILIES PAYING DISPROPORTIONATE RENT, AND ACTUAL AND PROPORTIONATE AVERAGE RENT, LOW INCOME TENANT GROUP, METROPOLITAN AREAS, 1941.

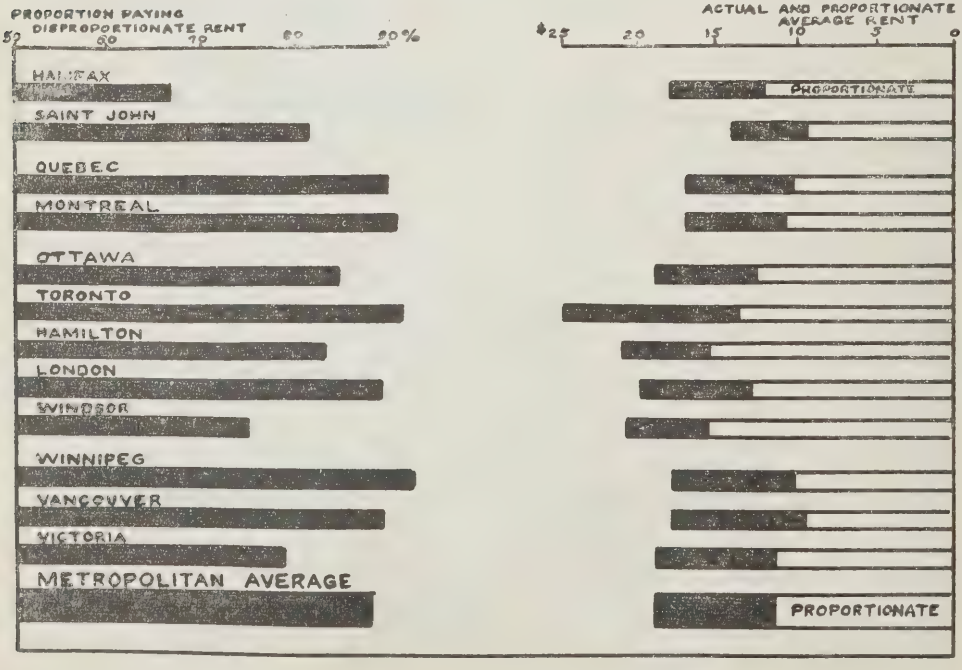
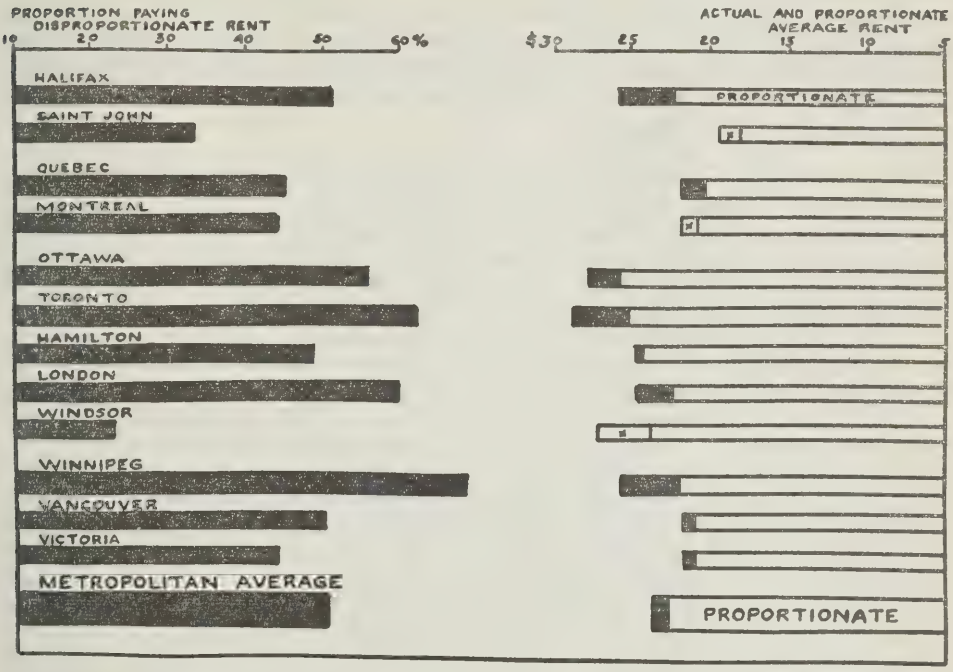


FIGURE 7

FAMILIES PAYING DISPROPORTIONATE RENT, AN ACTUAL AND PROPORTIONATE AVERAGE RENT, MEDIUM INCOME TENANT GROUP, METROPOLITAN AREAS, 1941.



* In three cities the proportionate rent is larger than the actual average rent. As the chart shows, however, this is consistent with a percentage of families paying disproportionate rent.

disproportionate rent is not 40 per cent but more than twice as much (88·7 per cent, see Table 30). The city percentages range from 66·5 in Halifax to 92·0 in Winnipeg. In the absence of any changes in basic incomes throughout the country, this is tantamount to saying that three-quarters to four-fifths of this lower third of city families depend on a public low-rent housing program if they are to be provided with proper housing accommodation (see Figure 6 and Table 30).

Before leaving these figures some evaluation can be made of the possibility that incomes are understated by the measurements here used. So far as unemployment benefit and relief is concerned, there could have been very little of such payments in 1941, and in any case their level is very much lower than most wage levels. Old age pension payments also are comparatively small. Most likely sources of increment which may not get full enumeration are those of earnings from other members of the family. Such studies as are available in Canada indicate that in wage-earner families the cases in which the supplements to the family budget from young earners constitute more than ten per cent of that budget, are exceptional.[1]

Under the peak conditions of wartime employment it is possible for more members of the family (including the wife) to contribute more than normally, but it is doubtful how far this should be carried over into postwar calculations.

[1] *Social Security for Canada*, p. 22. *Family Income and Expenditure in Canada, 1937-38*, a study prepared by the Dominion Bureau of Statistics, showed earnings of the father as accounting for 92·4 per cent of the family income, averaged for the whole income range of the study and between 93 and 95 per cent for families with incomes of from $1000 to $1500

Too much prominence is apt to be given to cases of particularly large families with a number of adults; even so, it must be remembered that large families require more rooms and must, therefore, pay more rent.

In the absence of exact information, the best way to consider this possible qualification is to measure its effect if it is true. Suppose incomes in the lower third group are so seriously understated as to require increase by as much as 25 per cent, this would raise the average family income ($703) to $879.[1] This income will support a rent of $14.50 a month, which measured against the actual average rate of $19 a month is still 23 per cent too high.

Standards of Accommodation

The picture so far presented would become more complete if it could be supplemented by information on the state of repair and other standards of adequacy. As already indicated, elementary figures of overcrowding in terms of averages do not contribute much without more detailed analysis. At a superficial glance, there might seem to be, among tenant families, fair adjustment between number of rooms and number of persons accommodated (4·3 rooms per household as compared with 4·0 persons per household). Moreover, in only one city is crowding plainly indicated (on an average), on the basis of rooms per person (see Table 31). Actually, considerable overcrowding is concealed by such averages. The perspective is better portrayed if the families concerned are distributed according to the size of family and number of rooms, and in two groups according as to whether or not their rents were within the twenty-per-cent standard. (Cee Table 32). It is clear, once this is done, that more of the smaller or average families are paying a proportionate or manageable rent. In terms of persons the differentials are not very great; but they are much more marked in terms of accommodation. Families of five or six persons or more (i.e. with three, four or more children) evidently have to assume a more burdensome cost in order to get the accommodation they need. Taking the standard of one room per person (kitchen being counted as one room) it has been estimated that 28 per cent of all tenant households in the low-income group—equal to 50,000 in number—lived in overcrowded conditions.

TABLE 31.—ACCOMMODATION CONDITIONS OF WAGE-EARNER TENANT FAMILIES IN THE LOW-INCOME GROUP, PRINCIPAL METROPOLITAN AREAS, 1941

Metropolitan areas	Persons per household number	Rooms per household number	Rooms per person number
Halifax	4·1	3·9	1·0
Saint John	4·2	4·8	1·1
Quebec	4·7	4·2	0·9
Montreal	4·1	4·2	1·0
Ottawa	4·5	4·4	1·0
Toronto	3·8	4·7	1·2
Hamilton	3·6	4·7	1·3
London	3·7	4·8	1·3
Windsor	3·8	4·3	1·1
Winnipeg	3·8	3·8	1·0
Vancouver	3·5	3·8	1·1
Victoria	2·9	4·1	1·4
Combined 12 metropolitan areas	4·0	4·3	1·1

[1] This is probably a generous supposition. The only sizeable types of incomes available to low-bracket families are pensions (military and industrial) due to disability, which by definition go to workers of impaired earning-power, and are therefore unlikely to raise the recipients beyond the upper boundary of the sector. There may be cases where families who are doubled-up, pay only half (or some other proportion) of the total rent of the dwelling, so that the rents here are comparatively low. Such cases, however, were specifically excluded from the above computation. (See more extended reference on possible qualifications of the income figures in Statistical Note D.)

TABLE 32.—COMPARISON OF FAMILIES PAYING PROPORTIONATE AND DISPROPORTIONATE RENTS, LOW-INCOME GROUP, PRINCIPAL METROPOLITAN AREAS, 1941

Size	Distribution of families paying	
	Proportionate rent	Disproportionate rent
	%	%
Persons		
2—4	70·4	68·7
5	13·8	11·9
6	7·3	7·5
7	4·4	4·9
8	2·0	2·9
9 or more	2·1	4·1
Rooms		
1—4	76·5	55·0
5	15·6	21·1
6	6·3	17·6
7	1·0	4·1
8	0·3	1·5
9 or more	0·3	0·7
Total	100·0	100·0

To alleviate overcrowding among tenants of the low-income group there is not only need for providing a separate dwelling for the numerous families who share a common household, but also to provide additional accommodation for those whose present quarters are too small for the size of their family. It has been estimated that for the low-income group alone there is need for 62,000 new dwellings of at least four rooms each to accommodate lodging families.[1]

It is also likely that a number of housing units occupied by low-income recipients are obsolete. Other dwellings are in slum areas and should be cleared out and rebuilt. If these further factors are taken into consideration, the total requirements for new dwellings for the low-income group are probably higher than the estimate indicated above.

Rentals: Medium Income Group

The comparison of actual rents with proportionate rents on the 20 per cent basis, among the middle sector of tenant families, is of much interest. Ignoring for the moment some important regional differences, there is much closer correspondence between the prevailing prices of housing accommodation and the amounts which families might reasonably be expected to pay. The latter average from the sample statistics of the twelve cities is $23.15; the average of all the rents actually paid, rounded to the nearest dollar, is $24. (See Table 33).

There is some reason for this coincidence. The income ranges here represented are those which can support rents of an amount which makes housing a reasonable commercial proposition for landlords and builders. Rents of about $25 a month are, it is true, about the lowest at which operating expenses of the landlord can be covered; and quite typically the kind of housing available provides only a minimum of facilities or may be converted or even deteriorated property. In the outlying districts of the cities, perhaps, it is possible to rent small flats, duplexes, etc. of comparatively new construction at less rent. But this is about the economic or commercial minimum; below it, there is no real catering for prospective tenants in terms of new or good housing. Above the level, one enters the range of superior and white-collar accommodation, and the smaller beginnings of home ownership.

[1] This estimate does not make any allowance for replacement of existing dwellings which are too small to conform with family size.

TABLE 33.—PROPORTIONATE RENT AND ACTUAL RENT PAID BY WAGE-EARNER TENANT FAMILIES IN THE MEDIUM INCOME GROUP, PRINCIPAL METROPOLITAN AREAS, 1941

Metropolitan areas	Proportionate monthly rent	Actual monthly rent (nearest $)	Deviation of actual rent from proportionate rent
	$	$	$
Halifax	22·85	26	3·15
Saint John	19·48	18	−1·48
Quebec	20·47	22	1·53
Montreal	22·05	21	−1·05
Ottawa	25·97	28	2·03
Toronto	25·82	29	3·18
Hamilton	24·70	25	0·30
London	22·65	25	2·35
Windsor	27·78	24	−3·78
Winnipeg	22·57	26	3·43
Vancouver	21·45	22	0·55
Victoria	21·57	22	0·43
Combined 12 Metropolitan areas	23·15	24	0·85

It is important to note that the more modest type of house which can be built for ownership under the National Housing Act, can be financed at rates of about $20-$26 a month depending on the methods of computation, the total costs involved and the lengths of the amortization period (see explanation at the end of the chapter). Home ownership, in other words, if it is adequately protected by financial assistance, town planning and other legislation, can enter into this sector of the city population. Whether enough such houses have been built in the past and whether they should be extended to the virtual exclusion of tendency, are other questions. In the light of the other information examined here, it would appear sanguine to suppose that more than one-half of this section of metropolitan families can benefit under provisions of the present National Housing Act type, as a maximum. If this is true, the deficiencies in standards and in supply of housing for this part of the population (indicated elsewhere) call for a rental housing program as well. Averages, as in all matters influenced by the unequal distribution of incomes, provide only a first approximation to the detailed situation. Fifteen per cent of the total pay, not around $20 or $25, but $35 or more per month. About fifty per cent of the families living in metropolitan areas throughout the Dominion pay a disproportionate rent, and in six cities more than half of the families strain their budgets in some degree by paying an excessive proportion for their housing needs. In only one city are there less than thirty per cent of the families of this section able to find rents safely within their capacity to pay (see Table 34 and Figure 7).

One of the facts to be noted in this important section where both rental-housing and home ownership policies are relevant is the wide range of variation between cities, and also between income groups contained within the sector. The fact is that the middle occupational classes are dispersed over a large range of rental levels; in particular, many different occupational classes are represented in the large group of medium-income families living (mostly in old housing) at the conventional or commercially economic rental level. Shortage of accommodation accounts for part of this; but another cause is the inflexibility of adaptation of house building to variations in family size and income. On the other hand, some among the higher income groups of wage-earners, as the figures show are fortunate enough to find particularly low-rent dwellings. Sometimes this means that they live in the outlying districts (where some of the counterbalancing factors such as transport costs are involved). Others may accept inferior accommodation for the sake of nearness to place of work and similar considerations, when better housing might really be preferred.

TABLE 34.—DISTRIBUTION OF RENT CLASSES, AND PERCENTAGE OF FAMILIES PAYING DISPROPORTIONATE RENT, MEDIUM INCOME GROUP, PRINCIPAL METROPOLITAN AREAS, 1941.

Metropolitan area	Rent class			Percentage of families paying disproportionate rent
	Under $20	$20–$34	$35 or more	
	%	%	%	%
Halifax	34·2	49·7	16·1	51·6
Saint John	66·1	31·8	2·1	33·2
Quebec	46·4	45·9	7·7	46·3
Montreal	49·9	42·1	8·0	45·1
Ottawa	25·4	38·1	36·5	57·5
Toronto	10·2	61·5	28·3	62·6
Hamilton	26·6	63·4	10·0	50·4
London	22·8	61·4	15·8	60·2
Windsor	21·8	69·7	8·5	26·4
Winnipeg	22·4	51·3	26·3	69·0
Vancouver	39·2	53·0	7·8	50·0
Victoria	41·0	53·3	5·7	43·9
Combined 12 metropolitan areas	36·1	49·4	14·5	50·5

Standards

As might be expected, standards of accommodation appear to be better in the middle sector of the cities, and there is a smaller proportion of overcrowding. The position shows up best in terms of rooms per household. When the distribution is classified by size of dwelling, the dominance of the four- and five-roomed house is very evident. As in the lower ranges of income, however, the housing needed to accommodate the largest families is apt to be very expensive.

TABLE 35.—ACCOMMODATION CONDITIONS OF WAGE-EARNER TENANT FAMILIES IN THE MEDIUM INCOME GROUP, IN PRINCIPAL METROPOLTAN AREAS, 1941

Metropolitan areas	Persons per household number	Rooms per household number	Rooms per person number
Halifax	4·3	4·7	1·1
Saint John	4·1	5·4	1·3
Quebec	4·9	5·0	1·0
Montreal	4·1	4·6	1·1
Ottawa	4·1	5·0	1·2
Toronto	3·7	5·0	1·4
Hamilton	3·8	4·9	1·3
London	3·7	5·2	1·4
Windsor	3·9	4·8	1·2
Winnipeg	3·4	3·3	1·0
Vancouver	3·4	4·2	1·2
Victoria	3·3	4·6	1·4
Combined 12 Metropolitan areas	3·9	4·7	1·2

More detailed examination of overcrowding in the middle area of the cities shows that it is by no means absent, although less pronounced than among the poorer groups. Taking one room per person as a standard, an estimate based on a count of the present sample figures is that 21 per cent of the families in the middle-area group lived under overcrowded conditions in 1941. This involved 37,000 families, representing a population of about 150,000. The overcrowding has, of course, increased since.

TABLE 36.—COMPARISON OF FAMILIES PAYING PROPORTIONATE AND DISPROPORTIONATE RENTS, MEDIUM INCOME GROUP, PRINCIPAL METROPOLITAN AREAS, 1941

Size	Distribution of families paying	
	Proportionate rent	Disproportionate rent
	%	%
Persons		
2—4	67·2	78·1
5	11·8	9·6
6	8·3	5·8
7	5·5	2·5
8	3·1	1·7
9 or more	4·1	2·3
Rooms		
1—4	48·7	44·9
5	27·2	23·6
6	19·2	21·5
7	3·6	6·0
8	0·9	2·8
9 or more	0·4	1·2
Total	100·0	100·0

Overcrowding is partly due to large families occupying housing accommodations which are too small, and also to doubling-up. But there are some families who, although they share their dwellings with other household groups, are not classified as overcrowded (on the basis of one room per person). They are overcrowded in the sense that they should be able to live in a unit of their own; but this type of inadequate accommodation is not covered by the restricted index used here. If the count is made only of doubled-up families, the new dwellings of reasonable size (at least four or five rooms), which would be required to provide separate units for each family within the medium income group, would be 30,000. (This makes no allowance for existing dwellings which are too small, for the replacement of obsolete or substandard housing or for some of the families, relieved of the pressure of having doubled-up families living with them, for whom the remaining accommodation is still too small; the correlation of the various possible estimates of deficiencies is made in Chapter 6.)

Summarizing, it can be said that there is need for at least 92,000 new dwelling units to alleviate overcrowding of low and medium-income tenant families in the principal metropolitan areas.

Regional Differences

(a) Cities and Provinces

It will be evident from the figures here assembled that in almost every city some special local conditions should be taken into account. A low-rent housing program in Saint John or Quebec City, for example, where a high proportion of wage-earner tenants have incomes of only around $600 a year, must get its rents down to a level which has not hitherto been achieved. In Winnipeg and Vancouver, the proportions may be somewhat smaller, but the numbers in these larger cities are correspondingly greater, and the statistics here show 30 per cent of the lower third with family budgets of less than $500. Montreal is specially important because it is the largest single group requiring a low-rent housing program. If the figures are to be taken at their face value, they show 83 per cent of the lower section as failing to attain $1,000-a-year budgets, and this involves some 70,000 families in this one city alone. Toronto, on the other hand, has one of the best income situations of all the Canadian metropolitan areas, but none the less the widest deviation between actual and proportionate rents ($11.23 on the average).

A postwar program designed to alleviate rental needs must take into account regional differences of other kinds. For example certain structural problems in Ontario are, in a number of ways, far more pronounced than in other provinces. Characteristic of Ontario are (*a*) the comparatively great number of spacious dwellings, (*b*) the high rents paid by the larger proportion of families in the low income bracket, and (*c*) the exceptionally high proportion of multiple family households. This last fact is explained by the need of families in the low income bracket to share their dwelling units with one or more other families in order to be able to afford to pay the high rents charged for large houses. Thus the conversion of large houses into multiple family units may play an important part in a postwar housing program in Ontario, if use is to be made of the great number of existing large dwellings with uneconomical rents.

The practical answer to these problems is that local surveys must be assumed as the necessary supplement to any federal legislation. Different preferences in the type of housing is the factor least amenable to general statistics. For the rest, however, what is needed is a series of plans which will provide for several income ranges, and in particular some very low levels. Differences in the proportions of these levels which are appropriate to different cities may then be taken care of most easily.

(*b*) *Differences between Central and Fringe Areas*

The reasons for giving consideration throughout to the fringe areas as well as to the areas within the boundaries of the city proper are made clear elsewhere. In conformity with this procedure, a few figures for the fringe districts as well as the main city area of the principal cities here surveyed are included.

For the lower third only, average incomes of the wage-earner tenant families are tabulated in Table 37. This shows convincingly enough that the needs of subsidized low-rent housing are not confined within city boundaries. The fact is that in the outlying districts of all Canadian cities there are two kinds of developments—new areas, mostly of high-grade homes for purchase, but including some middle-income rental blocks; and unplanned clusters of sub-standard dwellings, isolated shacks, and occasional converted farmhouses which have been erected or taken over mainly because the land is cheap, though this usually carries with it the condition that sewerage and other facilities are not provided.

TABLE 37.—AVERAGE ANNUAL EARNINGS OF WAGE-EARNER TENANT FAMILIES (LOW-INCOME GROUP) AND PERCENTAGE PAYING DISPROPORTIONATE RENT IN PRINCIPAL CITIES PROPER AND FRINGE AREAS, 1941.

Cities	Average annual earnings		Percentage paying disproportionate rent	
	City	Fringe	City	Fringe
	$	$	%	%
Halifax	734	739	70·2	52·9
Saint John	553	719	83·2	74·2
Quebec	628	546	90·8	84·2
Montreal	610	850	92·9	79·0
Ottawa	847	517	87·9	80·6
Toronto	822	835	93·5	86·4
Hamilton	868	800	83·2	76·9
London	795	520	89·9	81·2
Windsor	944	938	78·4	37·0
Winnipeg	639	519	93·2	87·5
Vancouver	577	560	90·6	79·5
Victoria	677	756	78·4	81·2

It is notable that in all of the satellite areas of the main cities except one, a smaller proportion pay disproportionate rents. The proportion, however is still high, 70-80 per cent is the most typical figure except for Halifax and Windsor where the percentages are 53 and 37 respectively (see Table 37).

In the twelve metropolitan areas, the proportion of owned homes is as a rule larger in the fringe areas than in the cities proper. Exceptions to this rule are indicated for four cities, namely, Toronto, Hamilton, Winnipeg and Vancouver. On the whole, the figures shown in Table 38 serve as one of the indices of the flight from the city to outer areas with its other implications in terms of revenue and land value problems. Even so, it is an important fact that 63 per cent of the population living outside the boundaries of the main cities are tenants, and that only in two cities does the proportion of tenants fall below 50 per cent of the total satellite-area population. In Montreal and Quebec the proportion is much higher than half. It is not possible, therefore, to oversimplify the problem of new housing programs by assuming that the building of homes for purchase is all that is needed to take care of the needs of the satellite areas.

TABLE 38.—TENANT DISTRIBUTION IN PRINCIPAL METROPOLITAN AREAS BY CITIES PROPER AND FRINGE AREAS, 1941.

Cities	City proper	Fringe area	Metropolitan area
	%	%	%
Halifax	63·5	59·0	62·1
Saint John	77·4	50·2	71·6
Quebec	80·3	60·6	75·5
Montreal	88·5	73·2	85·2
Ottawa	70·6	63·2	68·2
Toronto	56·2	65·3	59·8
Hamilton	56·0	75·0	58·0
London	54·3	50·0	53·8
Windsor	62·8	44·0	60·0
Winnipeg	56·1	63·1	58·6
Vancouver	49·9	54·3	51·3
Victoria	54·2	40·8	47·6
Combined Metropolitan Areas	67·9	63·4	66·6

II. Home Ownership

Prevalence of Home Ownership

Of all the dwelling units in urban Canada—1,437,000 at the last census—41·2 per cent of these occupied[1] were owned: either outright in process of purchase, or through mortgage payments, etc. It would be extremely easy, however, for a single statistical measurement, particularly a percentage applying to a large group rather broadly defined, to be misinterpreted. If this type of figure is to be used as a gauge in considering the dimensions of a post-war housing program, it is imperative that the various factors involved in its interpretation be understood. It would not be enough to say that two urban householders out of every five prefer to own rather than rent, or that all owned homes are the desirable possessions that are commonly thought of when home ownership is discussed and that this proportion is true of all parts of the country. How far it can or should be changed is touched on at several points in this report.

A considerable proportion of all the owned dwellings—316,000 out of 583,000 urban at the time of the last census—are in the smaller towns, where it is generally acknowledged that housing needs are less serious (with some exceptions due to wartime conditions). In the major urban centres (with populations of 30,000 and over), the total was only 267,000. More than 57·0 per cent of the

[1] About 22,000 were vacant, 832,000 rented and 583,000 owned.

(census) urban population live in those centres, a fact that emphasizes the importance of the main urban aggregations in any consideration of housing. The ownership proportion in these cities is 33·3 per cent, or one in three, as compared with 51·5 per cent, or better than one out of every two householders, in the small towns.

A summary of figures for 1931 is very illuminating on this point. Ownership is easier and less onerous in the smaller towns, while industrialization, greater mobility, and other factors increase the prevalence of rental housing more or less directly as population density increases the figures show the proportion of home ownership in the specified areas.

Rural areas	78·8
Small towns and municipalities (under 1,000)	63·8
Lesser urban centres (1,000-30,000)	53·9
Major cities (30,000 and over)	37·2

There is of course considerable regional variation. The proportions in Montreal City and one of the most important "dormitory" areas, Verdun (1941 figures are given in Table 39) are strikingly low; and tenancy is almost as dominant in Quebec, Three Rivers, and Saint John. St. Catharines, Kitchener and Fort William have the distinction of the highest proportion of owned homes; and London, and Brantford in the east, and Victoria, Vancouver, Edmonton and Calgary in the west, also rank high (upwards of 45 per cent).

TABLE 39.—DISTRIBUTION OF DWELLINGS BY TENURE IN MAJOR CITIES AND URBAN CANADA, 1941

Cities	Owned dwellings		Rented dwellings	Total number of dwellings[1]
	No.	P.C.		
Halifax	4,927	36·5	8,587	13,571
Saint John	2,681	22·6	9,181	11,989
Montreal	22,942	11·5	175,944	201,388
Quebec	5,306	19·7	21,588	27,177
Verdun	1,554	9·7	14,472	16,119
Three Rivers	1,626	22·0	5,748	7,458
Sherbrooke	1,767	23·4	5,789	7,667
Hull	2,223	36·5	3,872	6,121
Outremont	1,687	24·4	5,230	6,982
Toronto	62,732	43·8	80,408	145,606
Hamilton	17,570	44·0	22,319	40,267
Ottawa	9,578	29·4	22,957	32,705
Windsor	9,379	37·2	15,851	25,443
London	9,235	45·7	10,987	20,639
Kitchener	4,549	51·4	4,116	8,515
Sudbury	2,793	39·2	4,339	7,393
Brantford	3,885	47·5	4,297	8,222
Fort William	4,001	62·9	2,356	6,367
St. Catharines	3,813	51·2	3,630	7,514
Kingston	2,543	38·9	3,999	6,640
Winnipeg	21,504	43·9	27,459	49,504
Edmonton	10,685	46·3	12,397	23,449
Calgary	9,705	44·6	12,048	21,841
Regina	5,028	38·7	7,955	13,064
Saskatoon	4,254	41·1	6,098	10,538
Vancouver	35,603	50·1	35,513	72,484
Victoria	5,250	45·8	6,205	11,633
Major cities	266,620	33·3	533,345	810,296
Smaller cities (under 30,000)	316,420	51·5	298,434	626,466
Total urban	583,040	41·2	831,779	1,436,762

Source: Bulletin HF-1, Dominion Bureau of Statistics, Census, 1941.

(1) These figures include the vacant dwellings (10,331 in the 27 major cities, 11,612 in the rest); but percentages are based on totals *minus* vacant properties.

Most light is thrown on the picture by the figures of the values of the properties concerned. The census schedules for 1931 and 1941, provide information on the valuation of owned homes based on statements provided by the home-owners themselves. Even if some margin of error is allowed for figures of this type, their significance is great. In 1941, about two-thirds of homes in the 27 major cities were valued at less than $4,000 (see Table 40).

TABLE 40.—DISTRIBUTION OF OWNED HOMES ACCORDING TO VALUE, MAJOR CITIES, 1941.

Cities	Under $2,000	$2,000—$2,999	$3,000—$3,999	$4,000—$4,999	$5,000 and over
	%	%	%	%	%
Halifax	11·7	15·3	21·0	15·7	36·3
Saint John	66·1	13·1	6·0	3·6	11·2
Montreal	31·3	26·6	12·5	7·2	22·4
Quebec	36·5	21·7	10·9	5·9	25·0
Verdun	25·9	41·4	19·0	7·5	6·2
Three Rivers	42·9	16·2	15·6	10·4	14·9
Sherbrooke	27·6	19·0	18·4	7·4	27·6
Hull	61·9	16·9	8·2	1·9	11·1
Outremont	2·6	2·6	2·6	7·7	84·5
Toronto	5·2	16·4	28·6	20·7	29·1
Hamilton	12·7	26·2	23·9	17·4	19·8
Ottawa	9·4	15·2	16·5	17·0	41·9
Windsor	23·6	28·5	24·4	10·5	13·0
London	20·8	28·5	23·2	13·5	14·0
Kitchener	4·7	14·1	39·3	20·9	21·0
Sudbury	35·3	19·5	11·8	11·8	21·6
Brantford	21·1	27·6	22·2	11·5	17·6
Fort William	43·2	22·5	19·4	5·6	9·3
St. Catharines	14·4	19·8	29·4	17·1	19·3
Kingston	8·4	15·9	19·8	17·9	38·0
Winnipeg	26·4	25·5	21·9	10·5	15·7
Edmonton	37·3	23·0	18·2	10·2	11·3
Calgary	27·2	23·6	21·6	10·1	17·5
Regina	24·8	22·7	20·1	15·4	17·0
Saskatoon	45·1	21·1	13·9	9·2	10·7
Vancouver	35·8	24·4	18·4	9·4	12·0
Victoria	31·8	30·3	18·6	8·5	10·8
Combined 27 cities	22·3	22·0	21·4	13·4	20·9

Source: Dominion Bureau of Statistics, Housing Census, 1941.

So far as recent trends are concerned, in the last twenty years or so, there has been a marked and disconcerting decline both in the proportion of owned homes, and in their values. Owned homes in urban communities accounted for 45·6 per cent of the total in 1931, as compared with the 41·2 per cent of 1941. The decline was comparatively small in British Columbia and Nova Scotia, but of considerable proportions in Ontario and Saskatchewan. There was not one province in which the proportion of tenancy did not increase. A decline of home-ownership had also taken place in the decade 1921-31. During this period the proportion of home-owners to all householders fell by 3 per cent for all urban communities. The decline during the succeeding period (1931-41) was accelerated. It should be borne in mind that a decline of even one per cent in the total number of dwellings in urban Canada involves nearly 15,000 units.

This trend is not merely the product of depression, but of growing industrialization and increasing proportion of wage earners and other urban workers in the occupational structure. As a result of this the need for good rental housing is more urgent; and so far as it is desired to extend ownership among present tenant classes, facilities must be more easily available if the backlog is to be caught up.

During the 'thirties, undoubtedly, the decline in the proportion of owned homes in the major urban centres was due mainly to the uncertainty of economic conditions, though also to comparatively high acquisition and maintenance costs of new houses. It was not only the need for occupational flexibility which handicapped interest in home-ownership, but also the uncertainty of the main breadwinner of the family remaining employed and being able to continue to meet the obligations involved in owning a home. By taking an apartment or renting a home, a great number of families gave up, at least temporarily, the hope of owning a home. In a fundamental sense, these conditions can be remedied only if a program designed to assure full employment in the post-war period gives confidence to potential home-owners that they will be able to carry the burden involved in home-ownership because they can be assured of continuous employment. Other helpful devices such as mortgage insurance are relevant, and obviously a trend towards more home-ownership can be set into action more easily if the costs of acquisition and carrying charges are lowered.

About 119,000 homes out of the 267,000 owned dwellings in the major cities were valued at less than $3,000. Only 92,000 dwellings were in the $3,000 to $5,000 range, i.e., broadly speaking, the group where it might be reasonable to expect moderate sized and well-constructed houses owned by the better-paid wage-earners and whitecollar groups.[1] A still smaller proportion, numbering about 56,000 dwellings, were of a value ranging above $5,000, almost certainly the properties of the better-off and wealthy classes of the community.

Put in another way, about 22 per cent of the houses (or other dwelling units) were either very modest, or in some cases, distinctly poor structures, and in another 22 per cent in the class of moderate and comparatively low-cost properties; 35 per cent were in the $3,000-$5,000 range, and only a little over 20 per cent in all the higher brackets above $5,000. The cities with higher than average proportions of the least valuable properties add significance to the picture. In Quebec, Three Rivers, Hull, Montreal and Saint John there are many old or deteriorated properties; in many of the western cities (e.g., Saskatoon, Edmonton), light construction or small size rather than age, accounts for low values.

In short, poor economic conditions and the lack of a housing policy in the 'thirties caused great damage to the existing housing supply. The lessons to be drawn from that period should serve as a warning in formulating a post-war housing program. A replacement rate of houses as low as in the last decade, with unsatisfactory maintenance and repairs for the existing housing supply not only causes a lessening in value of houses situated in the most deteriorated areas, but affects also the neighbouring districts. Shoddy forms of new construction providing small-sized and poorly constructed houses provides no substitute for a comprehensive long-term program and do not reverse these trends.

Values of Mortgaged Properties

As indicated elsewhere, the total number of owned homes in urban Canada is around 583,000, of which number 266,600 are located in the major cities. Taking this latter group as representative, the proportion of owned homes on which there are mortgages not yet paid off is nearly 50 per cent, or a little less than one in every two (see Table 41). There is a good deal of regional variation on this point, and it would be better to say that the proportion of homes not free of mortgage ranges between 25 per cent and somewhat more than 50 per cent in most of the main cities. Percentages above 60 and below 25 are exceptional.

[1] 61·7 per cent of all houses built under the Part I provisions of the National Housing Act during 1938-1941 were in this range, another 20·8 per cent between $2,000 and $3,000. (See Table 90a.)

In the twelve main metropolitan areas of Canada, the proportion of home ownership is larger than in the twenty-seven major cities defined by reference to population (30,000 and over). The last census survey showed 33 per cent for the major cities, and 36 per cent for the metropolitan areas. Difference in home ownership proportion is one of the features which distinguishes the outer areas of the metropolitan regions; typically, 50 to 60 per cent of houses in the suburbs are owned. Judged from these figures, mortgage levels, property taxes and other costs of ownership are at present a matter of concern for about 267,000 dwelling owners in the major cities and a slightly larger number in the twelve metropolitan areas. (Costs of ownership are naturally much smaller for the unburdened houses of comparable value, on which there are no interest and principal payment to be made.)

The records give, as an urban average, $3,640 as the typical value of an owned home, and $1,903 as the amount of the mortgage. The range of valuations between cities is not as great as might be expected. Outremont, which is almost entirely restricted to high-class properties, is an outstanding exception. In thirteen of the twenty-seven cities the average value ranges between $3,000 and $4,000; eleven of these range between $3,000 and the average figure ($3,640). In only six cities is the average above $4,000. There is more variation in the average of house mortgages, but half of the cities show averages between $1,500 and $2,000. At least so far as city averages go, figures of over $2,000 are few, and except for Outremont there are none over $2,500 (see Table 41).

TABLE 41.—AVERAGE VALUE OF OWNED HOMES AND AVERAGE MORTGAGE IN 27 CITIES WITH POPULATION OF 30,000 AND OVER, 1941

Cities	Average value of owned homes	Percentage of homes with mortgage	Average mortgage on mortgaged homes
	$	%	$
Halifax	4,354	47·0	2,026
Saint John	2,294	26·2	995
Montreal	3,622	53·6	2,016
Quebec	3,728	40·9	2,382
Verdun	2,803	53·7	1,740
Three Rivers	2,939	43·0	1,521
Sherbrooke	3,611	42·1	1,706
Hull	2,371	25·8	1,206
Outremont	10,051	63·3	4,229
Toronto	4,356	59·5	2,205
Hamilton	3,685	56·4	1,877
Ottawa	4,568	48·8	2,102
Windsor	3,404	48·6	1,922
London	3,372	41·3	1,555
Kitchener	4,129	63·4	1,899
Sudbury	3,232	50·0	1,471
Brantford	3,446	43·7	1,443
Fort William	2,620	25·8	1,160
St. Catharines	3,640	44·2	1,737
Kingston	4,388	39·3	2,011
Winnipeg	3,271	39·3	1,575
Edmonton	2,764	21·3	989
Calgary	3,391	27·1	1,380
Regina	3,304	39·1	1,403
Saskatoon	2,610	27·5	1,261
Vancouver	2,997	41·0	1,648
Victoria	3,098	24·6	1,222
Combined 27 cities	3,640	46·7	1,903

Source: Dominion Bureau of Statistics, Housing Census, 1941.

These figures are small enough to be surprising and suggest that some further information would be useful. More detailed figures giving a frequency distribution of owned houses (including those with mortgages as well as those unburdened) were worked out for Montreal and Toronto, including also in these cases separate figures for the outer areas. Though the general scale of value is higher in Toronto than in Montreal, both sets of figures confirm that the upper brackets of residential properties are a comparatively small proportion of the total. In Metropolitan Montreal 60·6 per cent of the properties are under the $4,000 level, in Metropolitan Toronto 81·1 per cent under the $6,000 level.[1] Put in another way, above the valuation of about $6,000, there is a very wide dispersion, with houses representative of all grades up to the most expensive ones. Typical houses in Montreal, if the number of them is the test of their being typical, are in the categories $1,000-$2,000 and $2,000-$3,000, respectively. In Toronto the houses valued at $3,000-$4,000 are the most typical, by the same test, with houses of $2,000-$3,000 and $4,000-$5,000 second in predominance. No doubt some part of the variation between cities is the product of fairly arbitrary differences in real property valuation; and there may also be some tendency for values to be understated if they are ratable values rather than market values. Even so, it seems a fair conclusion that the average owned home in Canadian cities is more modest than is often assumed.

[1] This material is contained in Supplementary Tables 80–83.

CHAPTER 6

POST-WAR HOUSING NEEDS

To make an appraisal in quantitative terms, and on a national basis, of the number of housing units required to bring Canadian accommodation up to a desirable standard is not a simple task. Even for normal periods, there are several methods of making such projections into the future, the differing results of which have to be weighed and reconciled. It must always be borne in mind that a program expressed in over-all Dominion terms must be implemented, in the actual building stages, with the aid of local surveys, which will take account of local preferences for types, special factors of costs, climate and configuration, etc., and probably some of the more detailed post-war developments of local industry which cannot be fully allowed for in advance. In particular, it is necessary to distinguish, as far as this can be done, between normal growth of population and the abnormal increases which have taken place in all the war-industry centres. Some of this undoubtedly must be regarded as having come to stay; but it will still be helpful in the planning of programs to have some knowledge of the amount of accelerated increase as a separate factor.

A further complication is the difficulty of distinguishing between needs for new housing (whether as replacements of outmoded or substandard existing dwellings), and the volume of maintenance, renovation and rehabilitation work, which can conserve or in special circumstances extend the existing supply in some degree. The procedure adopted in this report has been to give attention to this latter computation only after appraising as completely as possible the factors which determine the need for net additions to the national housing supply. Finally, an adequate post-war housing program requires imperatively that attention should be given to rural as well as urban needs, and these are brought together in the chapter on that subject.

A. Housing Since the War: 1939-1943

It can be said without exaggeration that the present war has revolutionized the industrial life of Canada. Industries which were in their infancy, such as shipbuilding and aircraft manufacture, have grown to enormous dimensions in the course of a few years. Shipbuilding in this country provided employment for less than 3,000 people before the war, but in 1943 more than 75,000 persons were working in the industry. Still more marked is the development of the aircraft industry, from a level of about 3,000 in September, 1939, to over 100,000 in June, 1943, with women workers making up 25 per cent of the total.

A large part, though by no means all, of this industrial growth took place in the major urban centres. To measure the impact of the war on employment, a special computation has been prepared of salaried and wage-earning workers in the major industries in the 12 metropolitan areas, by comparing the number of employees reported for the months of September, 1939, and June, 1942. The industries covered included manufacturing, primary industries (excluding agriculture), construction, transportation and communication, trade and services. The computation is based on returns of large and medium-sized firms (defined as those with 15 or more employees). Usually these firms employ the great majority of the total labour force. Thus, the statistics presented in Table 42 can be regarded as a major sample of employment figures indicating the effect of the war on the industrial population of the main cities.

3061—9½

In June, 1942, large and medium-sized firms employed about 827,000 persons in the combined 12 metropolitan areas as against 521,000 in September, 1939, or an over-all increase in employment of nearly 60 per cent. Since June, 1942, the employment provided in these areas has risen still further. Although the average rise is only in the neighbourhood of 60 per cent, a number of cities show a substantially higher increase, for example, Quebec nearly 100 per cent, Halifax 109 per cent and Windsor a record-breaking percentage of 121.

In terms of population affected, the largest increase of industrial employment took place in the main metropolitan areas though the employment increases in smaller centres of industrial employment have been widespread. (It should be remembered also that the basis of the figures is such that the smallest firms, employing less than 15 employees, are not covered.) Firms situated outside the main metropolitan areas employed 662,000 persons in September, 1939, and 902,000 in June, 1942, an increase of 240,000 or 36·2 per cent. The volume of employment in smaller urban centres increased during the same period by slightly less than two-thirds of that in the main metropolitan areas, though the proportionate increases were in many cases greater. For Canada as a whole, employment for the same period increased from 1,183,000 in September, 1939, to 1,729,000 in June, 1942, a rise of 546,000 or 46·1 per cent.

TABLE 42.—INCREASE IN EMPLOYMENT OF SALARIED AND WAGE WORKERS, METROPOLITAN AREAS, SEPTEMBER 1, 1939 TO JUNE 1, 1942

Metropolitan areas	Number of employees		Increase	
	Sept., 1939	June, 1942	Number	Per cent
Halifax	8,003	16,719	8,716	108·9
Saint John	6,412	11,441	5,029	78·4
Quebec	15,965	31,722	15,757	98·7
Montreal	169,693	253,538	83,845	49·4
Ottawa	18,662	27,563	8,901	47·7
Toronto	147,717	231,355	83,638	56·6
Hamilton	31,796	54,446	22,650	71·2
London	12,004	15,528	3,524	29·4
Windsor	16,888	37,338	20,450	121·1
Winnipeg	46,764	60,891	14,127	30·2
Vancouver	42,451	76,605	34,154	80·5
Victoria	4,983	9,763	4,780	95·9
Combined 12 Metropolitan areas	521,338	826,909	305,574	58·6

Source: Special compilation by the research staff of the Advisory Committee on Reconstruction based on material from the Employment and Payroll Statistics Branch, Dominion Bureau of Statistics. Data relate to reports by employers with 15 or more employees.

Wartime employment in manufacturing is the main cause of the substantial increase in the number of industrial workers. Estimates prepared by the Department of Munitions and Supply indicate that on July 1, 1943, there were about 848,000 men and women employed in manufacturing industries concerned either directly or indirectly with war orders, while only a little more than 500,000 were working in manufacturing industries concerned with civilian demands. If other sections of economic activity besides manufacturing are included, the figures are much larger. In the statement tabled by the Minister of Labour early in 1943, the full totals amounted to 820,000 men and 216,000 women, or 1,036,000 persons in all, engaged in work directly related to the war effort. A high proportion of these workers have moved into the towns concerned for the first time, or have sought better accommodation than the slum properties or doubled-up households in which they previously lived.

In considering the questions, what is the normal rate of growth of our major cities, and how has the war affected it, it must be recognized that there is no such thing as natural growth of cities which can with accuracy be projected into the future. Just as economic conditions change suddenly for the

better or for the worse, so our cities experience accelerated or retarded growth. Development of natural resources nearby, extension of communication and transportation services, increased industrialization are all factors which change at different rates and influence city growth accordingly. To these have to be added other factors such as the racial homogeneity and cultural development of the city inhabitants, and the degree of proper city planning, efficient civic administration and wise taxation policy.

Because of variables such as these, the figures presented below can be regarded only as approximations based on certain assumptions which may or may not come true. Only experience will show us how near the truth certain assumptions have brought us.

Some information on annual city growth is available from civic censuses, which in most of the larger cities are taken at the end of each calendar year. As a result of a special enquiry directed to the 27 largest cities, statistics were secured for 20, estimates for 2 and replies that no information was available from the remaining 5 cities. The data gathered are presented in tabular form below for the period 1931-1942 and have been set next to figures on population growth obtained from the population censuses of the Dominion Bureau of Statistics (see Table 43).

It should be emphasized that for a number of reasons figures from the civic and Dominion censuses are not strictly comparable.[1] The figures of the Dominion Bureau of Statistics, however, serve as a useful "correcting function" in cases where civic censuses may understate substantially city growth. Actually, only five cities, namely Three Rivers, Windsor, Brantford, St. Catharines and Fort William, show major discrepancies.

Because of the different methods of computation, civic censuses cannot provide the same accuracy as the population censuses, though they may serve as a useful indicator of changes in the decade between two censuses. The fact that civic census figures relate only to the city proper area is of great significance when considering population growth. As it has been pointed out elsewhere, the outer areas of most cities have grown considerably faster than the old central city areas. This means that the statistics indicating wartime growth shown in Table 43 are liable to understate the growth of the city, interpreted in terms of the greater city area. Furthermore, statistics are available only up to and including 1942, while some cities (such as Edmonton) have expanded at a faster rate during 1943 than in previous years.

With these qualifications taken into account, the following picture of wartime growth in the major cities presents itself. Some of them commenced to expand on account of the war shortly after its outbreak in 1939, particularly Halifax, Three Rivers, Ottawa, Sudbury and Vancouver. Other cities, and they are in the majority, did not experience substantial growth before the second war-year had commenced.

In most cities, the annual growth of the period preceding the war was doubled, trebled and quadrupled. The case of Halifax, where the population of about 70,000 in 1939 rose to over 106,000 at the end of 1942, is exceptional. For the combined major cities, the population growth on account of the war was about three times as great as in the preceding period.

[1] There are several reasons why statistics of the Population Censuses of the Dominion Bureau of Statistics and of civic censuses differ: (*a*) The Dominion Census is taken about the beginning of June and it is decennial, while the civic censuses are ordinarily taken in the course of December and are annual. The term census year, used in this report, refers to the year which commences in June of one year and ends in May of the next; civic census figures relate to the calendar year. (*b*) Both censuses do not always agree in the definition of the city area covered. (*c*) The question of residents is treated differently in civic and population censuses. For example, soldiers, sailors, students and others who are either overseas or away temporarily from their normal place of residence, are recorded in the Census as residing in the district where their permanent home is situated. No such treatment is accorded to this group in the civic census.

TABLE 43.—COMPARISON OF PEACETIME AND WARTIME ANNUAL POPULATION GROWTH OF THE MAJOR CITIES, 1931-1942.

Cities	Annual population increase		
	Census—D.B.S.	Civic census	
	1931–1941	1931–39(40)	1940(41)–42
	%	%	%
Halifax [1]	1·9	2·1 [2]	13·0
Saint John [3]	0·9	—	—
Montreal [4]	1·0	1·0	1·5
Quebec	1·5	1·5	2·2
Verdun	1·1	1·3	2·6
Three Rivers	1·9	0·4 [2]	1·7
Sherbrooke	2·4	2·0	4·8
Hull	1·2	0·8	3·5
Outremont	0·7	0·9	1·8
Toronto	0·6	0·4	1·6
Hamilton	0·7	0·8	3·9
Ottawa	2·2	1·4 [2]	3·1
Windsor [5]	0·7	0·2	4·4
London	1·0	0·6	1·6
Kitchener	1·6	1·0	2·5
Sudbury	7·4	6·1 [2]	5·7
Brantford	0·6	0·1	0·7
Fort William	1·6	0·5	2·3
Saint Catharines	2·2	1·1	6·8
Kingston	2·9	2·2	6·8
Winnipeg	0·2	0·6	0·4
Edmonton	1·9	1·8	2·2
Calgary [3]	0·6	—	—
Regina [3]	0·9	—	—
Saskatoon [3]	0·1 [6]	—	—
Vancouver [7]	1·2	1·4 [2]	2·3
Victoria [3]	1·3	—	—
Combined 27 cities	1·0	0·9	2·7

Source: Special compilation by research staff, Advisory Committee on Reconstruction, based on returns received from civic authorities and material available from the Population Censuses of 1931 and 1941.

[1] Figures for 1931 and 1939 are estimates by civic authorities. Figures for 1942 taken from new city directory published in 1943.

[2] In this city, wartime increase of population was noticeable shortly after the war. Figures in the third column relate to 1931-1939 and in the fourth column to 1940-1942. Population growth in cities not especially marked relate to 1931-1940 and 1941-1942, respectively.

[3] No civic census taken.

[4] Figure for 1931 taken from census of Dominion Bureau of Statistics; figure for 1940 arrived at by straight-line interpolation and figure for 1942 is estimate prepared by Dr. A. B. Valois, Demographer and Superintendent of the Division of Vital Statistics, Montreal.

[5] Including East Windsor, Sandwich and Walkerville.

[6] Decrease.

[7] Figure for 1931 obtained by straight-line interpolation of statistics availble for 1930 and 1932.

Relation to Housing Demand and Supply

To summarize the effect of the war on the growth of our major cities, a war period of six years may be taken. Assuming that the war ends in the second half of 1945, the first and the last year of the total period may be counted as years of normal growth, the first because the movement to industrial centres had not begun to any large extent before the second war-year, and the last because there is a limit to manpower mobilization for industry, and it is likely that the peak of abnormal city growth on account of the war will have been reached, perhaps in 1943, but not later than in 1944.

The major cities increased during the decade preceding the war by about 36,000 people annually. If we assume that during the six war-years these cities experience a normal annual increase of 36,000 for two years and an abnormal increase of about three times the size (or 108,000) for four years, a war-time increase of about 500,000 people during six years will have occurred. If it were assumed that without the influx of people during the war, the major cities would have increased at the same rate as in the previous decade, these cities would have shown an increase of slightly over 200,000 for a six-year period. This leaves as the influx of people to the major cities solely on account of the war a total of 300,000.[1] They comprise mostly industrial workers and their families. About half or even two-thirds of these war-workers may want to remain in their new localities after the war is over. If this is the case accommodation will have to be provided for another 150,000 to 200,000 people in addition to new accommodation required to house the normal population growth of the cities.

To evaluate the significance of this further, some information is desirable on recent building activity. Shortly after the outbreak of the war, the Dominion Government was forced to restrict residential building construction considerably to conserve vital war materials and labour supplies. This restrictive policy made itself felt, particularly after 1941. It is estimated that for urban Canada there were at the most about 24,000 housing units constructed in 1941, and about 18,000 in 1942.[2] Less than 40 per cent of new dwellings constructed during 1942 were privately financed, including those financed by loans made by private lending institutions. The largest proportion, about 46 per cent, was of temporary nature, built for war workers by Wartime Housing Limited in cities where overcrowding on account of the war was most acute. A small proportion of dwellings, namely 7 per cent, were erected with assistance under the provisions of the National Housing Act, and a similar proportion of new units was created by the reconversion of existing dwellings (see Table 44).

TABLE 44.—ESTIMATES OF PUBLIC AND PRIVATE RESIDENTIAL CONSTRUCTION, 1941 AND 1942

Source	Housing units constructed in 1941		Housing units constructed in 1942	
	Number	Per cent	Number	Per cent
Assisted under the National Housing Act, 1938 (1)	4,693	19·6	1,369	7·6
Housing built under Wartime Housing Limited	1,203	5·0	8,307	46·2
Privately built:				
Units in new buildings	18,104	75·4	7,055	39·2
New units from reconversion of old buildings			1,269 (2)	7·0
Total	24,000	100·0	18,000	100·0

Source: Table prepared by Research Staff, Advisory Committee on Reconstruction, based on information supplied by the National Housing Administration, Wartime Housing Limited and the Dominion Bureau of Statistics.

(1) Possible cancellations have not been taken out.

(2) Figure relates to 204 communities for which reports on building permits are received.

[1] If account were taken of the fact that many war workers and their families have moved into communities which form parts of the metropolitan areas, the impact of wartime expansion upon the main urban centres would be substantially larger than suggested by the above figure.

[2] The estimate for 1942 is based on a special compilation of new housing units constructed in 204 urban communities recently inaugurated by the Construction Census Branch of the Dominion Bureau of Statistics. The estimate for 1941 is based on the assumption that the number of housing units constructed in this year declined in the same proportion as the value of building permits issued for residential construction. This assumption is supported by the fact that residential construction contracts awarded in 1941 declined by about one quarter in 1942. Figures for 1941 and 1942 are not fully comparable with those shown in Table 3 of Chapter 1 because the latter are based on an interpolation of the net increase of dwellings obtained from the Population Censuses 1921-1941, adjusted for the number of dwellings destroyed and demolished.

The estimate arrived at later in this section is that the actual annual building need of all the cities and towns of Canada as a whole is about 57,000 units while a minimum program, allowing for a degree of doubling up and obsolescence, is placed at 37,500 units. New units built in 1942 amounted only to a little over half of what are set as minimum requirements. (If housing units erected by Wartime Housing Limited were excluded, the proportions would be reduced still further.) These figures clearly indicate that the need for conserving vital war materials and manpower resources have forced us to forego temporarily all but the most elementary provisions for housing accommodation, and that a substantial back-log is still accumulating.

Until the fall of 1943, additional housing units were constructed by Wartime Housing Limited. Since these temporary units were not enough to meet immediate needs, an experiment of housing conversion was undertaken by the Government on a small scale. This expedient started with the Home Extension Plan, 1942. The purpose of this plan is to enable home owners to convert their houses into multiple family dwellings by applying for loans from approved lending institutions which have received a limited guarantee from the Dominion Government against loss. The Plan is similar to the relevant provisions of the Home Improvement Loans Guarantee Act of 1937. Since the initiative to apply for loans under this Plan was left to the discretion of home owners, the response was slow and it has been necessary for the Dominion Government to step into the field of housing conversion itself. A series of regulations applicable to the main urban congested areas, was introduced in 1943.

The Housing Conversion Plan, as it is entitled, started with an Order in Council (P.C. 2614) dated April 1, 1943, authorizing the Minister of Finance to lease suitable buildings in the Greater Ottawa area from their owners for a period of five years with the right of renewal for an additional three years, and to convert them into multiple family housing units for the purpose of sub-letting. The average estimated cost of construction per unit was not to exceed $1,500. A further limitation was set by fixing the total amount to be spent on the conversion of houses in the city. This first Order in Council was followed by others making similar provisions for Toronto, Vancouver, Victoria, Montreal, Quebec, Hamilton, Brantford, St. Catharines, Sarnia, Windsor, Halifax, Moncton, Saint John, Calgary and Edmonton.

To carry out the conversion program in these cities a total of $2,500,000 was authorized (as of November 1, 1943) designed to provide a minimum of about seventeen hundred new housing units. Further amounts have been authorized since. The average cost of each housing unit of a conversion project recently completed in the Ottawa area (where costs are unusually high) amounts to $1,400. If average costs per housing unit across the country can be kept in the neighbourhood of $1,000, the sum authorized so far would provide two thousand five hundred new dwelling units at about one-fourth the cost of new one-family dwellings. Furthermore, conversion contracts carried out show that only one-third of the important materials, that would have been required to build new one-family dwellings, was used, thus conserving precious materials and construction labour alike.

It is anticipated that between one-quarter and one-third of gross receipts from sub-letting of converted housing units will be available to amortize the capital cost of the Conversion Plan, thus making the amortization of the initial investment feasible within five to six years of commencing operations. Although not a complete solution of the present housing shortage, the Housing Conversion Plan is helping to alleviate overcrowding in some areas while, at the same time, conserving vital war materials and man-power as much as possible.[1]

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[1] Firestone, O. J., "*The Labour Value of the Building Dollar*", National Housing Administration, Department of Finance, Ottawa, November, 1943, p. 22.

While the activity of Wartime Housing Limited and the Housing Conversion Schemes contribute somewhat to alleviate the housing shortage in certain areas, the number of new units constructed, quite apart from the temporary nature of many of them, is small as compared with the basic housing needs of the country. Wartime housing measures can hardly be considered as more than emergency adjustments in localities where the need is most urgent, and these forms of construction may even accentuate the postwar housing problem if there is a tendency to keep in permanent use units which are not suited for it. If nothing further is done, such units could become part of new slum areas.

The fact that housing needs have become greater than ever during the war, while the housing supply has deteriorated considerably, is emphasized in a number of recent reports and statements by Medical Officers and other civic authorities in the major Canadian cities. Some examples have been assembled in Appendix A, in case there should be any doubt as to the seriousness of the contemporary picture.

B. Post-war (Urban) Housing Requirements

In order to ascertain the dimensions which a housing program after the war must face, some basic information on the methods of measuring Canadian housing requirements is needed. For a quantitative appraisal of past performances in house-building and the relation of future programs to the needs of the country, the following two measurements may be used:

(1) One measurement comprises the assembly of information on the *backlog* of residential construction. This measurement, based on past performances in house-building, takes the average volume over a period of high building activity as a desirable standard, and measures the deficit accruing from lesser building activity in lean years. While this approach is a popular one, it does not meet the basic problem of relating the volume of houses actually built to the requirements of families and other household groups if certain standards had been applied. The volume of residential construction in Canada was comparatively large in the late twenties and caused a glutting of the commercial housing market by providing more dwellings than those who could afford to buy homes or rent expensive apartments could absorb. The existence of this particular over-supply of houses at the end of the twenties, however, hides the fact that a substantial proportion of families of medium and low incomes were not adequately housed, some living in overcrowded conditions, while others were forced to reside in slum districts in poorly built shacks at the outskirts of the large cities and so forth, these being the only homes they could afford to rent or own. These qualifications are elucidated elsewhere with the aid of figures from the 1931 Census.

(2) The other measurement is concerned with the *accumulated building need*. This measurement must necessarily be related to some standard. It assumes (*a*) that every family and non-family household group desiring to live in their own quarters should be able to obtain a separate dwelling unit (one-family house, apartment, etc.), and (*b*) that it is desired to remove, at some reasonable rate, all substandard and slum dwellings from the existing housing supply. This view of basic housing needs recognizes the necessity of replacing inadequate dwellings, whether in slum or other areas, and irrespective of whether this has been done in the past or not. An interpretation difficulty in this measurement, is that, to the extent that past accomplishments are limited, it will show a substantial building deficit. This is particularly true for Canada, since the Dominion has never had a planned slum clearance program, measures securing the orderly withdrawal of old and dilapidated houses, and a large-scale low rent housing program to take care of a major section of the urban population.

For the purpose of this report, it has been deemed advisable to assess accumulated building needs as an indicator of the housing needs of the Canadian population on the basis of an accommodation standard or requirement, rather than what has actually been the result of such building as there was. At

the same time, acknowledgment of the difficulties which large-scale housing programs entail, forces an assumption that the goal of an entirely satisfactory housing standard may not be reached even at the end of a twenty-year period. It is as well to enumerate the difficulties which may be encountered after the war, although it is not necessary to assume that none of them can be overcome:—

(*a*) A public low rent housing and subsidized home-ownership program will probably get under way slowly because of lack of practical experience in this field—in building, in design and planning, in municipal action, in management. Although it can be expected that programs will grow substantially in dimensions as more experience is accumulated and the advantages of such a scheme for the country as a whole are better understood, a realistic approach to the problem must allow for the possibility that a public housing program may remain behind expectations during the first few years after the war.

(*b*) The execution of a public housing program will depend to a critical extent on the progress made in land acquisition, slum clearance and town planning, legislative and administrative measures for which are provincial and municipal responsibilities. If the response from provincial governments and municipalities falls short of what is required, the carrying out of public housing projects, even though based heavily on Dominion Government funds, may be seriously delayed.

(*c*) There may be a shortage of certain construction materials (*e.g.*, seasoned lumber) in the immediate postwar period. The significance of some of these possibilities may not be minimized. The shortages of seasoned or dried lumber, for example, is already exerting critical limitations on construction at present, and the supply cannot be augmented on short notice. Arrangements to give some priority of attention to the supply of both primary and substitute materials, even before the end of the war, may be essential if housing programs are not to be held up at the start.

(*d*) There will certainly be a shortage of skilled workers if a substantial volume of construction of all kinds is entered upon after the war, unless appropriate and timely action is taken to prepare the necessary training facilities, agreements between unions and the construction industry, such as apprenticeship legislation and so forth.

(*e*) The dimensions of a public housing program will depend on the efficiency with which contractors and builders will be able to handle large housing orders. Since it is recommended that the public housing program (with the exception of certain types of experimental and demonstration projects) be carried out by private industry, every means will have to be sought by the sponsoring governments to secure and encourage the utmost efficiency from the building and equipment industries. Unless a minimum degree of efficiency is assured, indeed, the Dominion Government might well hesitate to spend large sums of money, part of which would tend to subsidize marginal builders and entail waste of public funds.

These considerations counsel (*a*) the computation of an *actual accumulated building need* and (*b*) the suggestion of an *immediate program*, directed towards at least partial liquidation of accumulated housing need, perhaps of the order of two-thirds of what would be a complete liquidation of past omissions and present inadequacies. The two concepts are brought together in a summarized fashion in Table 45, the methods of computation of the various components being explained as the chapter proceeds. It is important to bear in mind that the liquidation of the total accumulated backlog, taken on the minimum basis of 320,000 units, will be spread over a period of years. Timing possibilities are further examined later, but for summary purposes a twenty-year period may be assumed. By this procedure, an annual quota of 16,000 units would have

to be added to the current building need which, on a minimum basis, has been estimated (below) at 37,500 per year for all Canadian cities, towns and incorporated and non-incorporated communities forming parts of metropolitan areas.

For a computation of Canadian housing needs, 1946 has arbitrarily been taken as the first post-war year. Housing requirements prior to 1946 are classified as accumulated building need and are expressed in one overall figure covering a variety of causes. From 1934 onwards, estimates of the *annual* or *current building need* are made specifically. This comprises the building need which derives from normal population increase and replacement for wear and tear, *i.e.*, it would be required even if there were no slums or overcrowding or any abnormal shortage due to the war. It will be well to set out the various components in summary fashion so that the succeeding figures may be better understood.

The *accumulated building need* comprises:—

(*a*) *Current shortages,* irrespective of overcrowding, slums, etc.:

1. Building deficit on account of the war, *i.e.*, the number of dwellings which should have been constructed to house urban population increases, but which were not built because of other calls on construction.

2. The abnormal city growth of the major industrial centres on account of the war. (This has been taken up to 1945, assuming this as the last war year.)

3. A minimum vacancy rate in the major cities in order to assure the necessary flexibility for population shifts.

(*b*) *Overcrowding,* irrespective of structural or environmental deficiencies:

4. The number of families without separate households of their own in 1941.

5. A minimum number of non-family household groups who would prefer to live in their own quarters and can afford to do so.

(*c*) *Substandard and slum dwellings.* A minimum program of replacing obsolete structures and dwellings situated in slums and blighted areas has to be provided.

(*d*) *Special allowance.* (Unincorporated suburban areas). The computation of accumulated building need in (*a*) to (*c*) relates only to urban areas as defined in the census. To cover the housing requirements of non-incorporated communities forming parts of metropolitan areas, it is necessary to make a special allowance to cover their housing deficit on all the counts enumerated above.

The *annual building need* in 1946 and following years comprises:

(*a*) Dwelling units required to house the *population increase* in cities and towns, *i.e.*, to take account of normal urban population growth. (From 1946 on, this will be equivalent to the new dwellings required to prevent an increase in overcrowding, one of the components of the accumulated building need listed above.)

(*b*) *Replacement for wear and tear, i.e.,* a desirable rate of replacement of those dwellings which become obsolete in the course of the year. (This replacement rate is the annual equivalent to the accumulated need for replacement of substandard and obsolete dwellings listed above.)

TABLE 45.—DIMENSIONS OF ACCUMULATED URBAN BUILDING NEEDS, AS OF 1946 (ACTUAL BUILDING NEED AND MINIMUM PROGRAM)

Type	Number of new dwellings required			
	Basis of estimate	Major cities	Smaller cities, towns and incorporated communities	Total urban
I. *Actual Accumulated Building Need*				
(a) *Current Shortages*				
1. Building deficit, normal population growth (war years)	1941–45	(30,000)*	(15,000)*	45,000
2. Abnormal city growth due to war industries	1939–45	35,000	5,000	40,000
3. Vacancy rate (2 per cent)	1941	16,000	13,000	29,000
(b) *Overcrowding*				
4. Doubled up families	1941	110,000	40,000	150,000
5. Doubled up non-family groups	1941	(32,000)*	(12,000)*	44,000
(c) *Substandard and Slum Clearance*				
6. Minimum replacement program	1941	125,000	50,000	175,000
(d) *Special Allowance*				
7. Non-incorporated parts of Metropolitan areas	1941–45	—	—	17,000
Total	—	348,000	135,000	500,000
II. *Immediate Program*				
(a) *Current Shortages*				
1. Building deficit, normal population growth (war years)	1941–45	(16,000)*	(7,000)*	23,000
2. Abnormal city growth due to war industries	1939–45	35,000	—	35,000
(b) *Overcrowding*				
3. Doubled up families (half of total)	1941	55,000	20,000	75,000
(c) *Substand rd and Slum Clearance*				
4. Minimum replacement program	1941	125,000	50,000	175,000
(d) *Special Allowance*				
5. Non-incorporated parts of metropolitan areas	1941–45	—	—	12,000
Total	—	231,000	77,000	320,000

* Distribution of deficit as between major cities and smaller cities, towns and incorporated communities is arbitrary.

I. *Actual Accumulated Building Need*

(a) *Current Shortages*

Since the computation of housing requirements is based on statistics drawn from the Census of 1941, estimates on current shortages are designed to bring housing requirements up to 1946, which has here been assumed to be the first post-war year.

1. *Building deficit, given normal poulation growth* (June, 1941-December, 1945). From experience during the period 1931 to 1941 (as explained later), it appears that urban Canada needs annually about 30,000 new dwellings to provide additional housing accommodation for the growing number of families (and non-family household groups), apart from replacement for wear and tear and demolitions. Approximately 24,000 units (including temporary housing) were built in 1941, and about 18,000 in 1942. In 1943, the number of new units built further declined and although no definite statistics are available, it is probable that the total number constructed in urban areas did not exceed 15,000. Recent announcements on the relaxation of restrictions on construction materials permits the assumption that the number of new housing units to be

built during 1944-1945 will be greater than that for 1943. It is estimated that for the four-and-one-half years from June, 1941-December, 1945, at least 135,000 units would be needed to take care of the *normal* growth of urban centres, apart from requirements for the replacement of the existing housing supply. At the most, units constructed during this period will number 90,000, leaving a deficit on this account alone of about 45,000 dwellings.

2. *Abnormal city growth* due to wartime industrial expansion. If account be taken of the abnormal city growth during the war, it appears that permanent housing after the war will be needed for from 150,000 to 200,000 persons, who, as indicated previously in this chapter, may want to remain in the cities. To house this group will require the construction of some 35,000 dwellings in the major cities alone. To this has to be added an allowance for housing requirements for some of the smaller cities and towns which have experienced extraordinary growth on account of war industries. It cannot be expected that all those who have migrated to smaller urban centres during the war years will leave these areas after the war is over. To allow for the requirements of this particular group of war workers and their families, the need for new dwellings in the smaller urban centres is placed arbitrarily at 5,000 units. Thus, the total housing requirements of those war workers and their families who will remain in urban centres after the war will be of the order of 40,000 units.

3. *Vacancy rate.* As explained later, there is substantial doubling-up among families and non-family household groups in urban centres brought about by the deficiency in housing accommodation available. But even if the number of dwelling units did equal the number of families and non-family household groups which desire and can afford to live in their own quarters, some shortage would persist, since families are never distributed in the same way as dwelling units. In a dynamic economy, a constant shift of population takes place at a more rapid rate than changes in the housing supply. There may be an over-supply of houses in one area and a shortage in another, in spite of the fact that, statistically speaking, families and dwellings may be equal in number. In other words, the housing supply must exceed the number of families and non-family household groups if occupational flexibility and shifts of population are to be facilitated at all. The proportion of vacant dwellings to the total number of dwellings is usually described as the "vacancy rate." In Great Britain, a vacancy rate of 2 per cent is regarded as a desirable minimum which would not seriously affect the rent level and would allow for normal shifts of the population. In the United States, the desirable vacancy rate has been set at from 4 to 6 per cent in different areas.

In order to establish a desirable vacancy rate for Canadian cities and towns, consideration will have to be given to regional variations in population shift. In Chapter 4, reference was made to urban disaggregation, particularly in the west, and self-explanatory statistics are included in the Statistical Appendix (Supplementary Tables). It is probable that an average vacancy rate of 4 per cent, covering a range, perhaps of from 2 to 6 per cent, depending on the economic conditions in each particular area, would provide the flexibility necessary to meet the housing requirements of ordinary times. Such a vacancy rate would not suffice to meet special cases such as the industrial intensification of the war, the sudden economic development of hitherto undeveloped regions, or large-scale immigration. Disregarding special cases of this type, a vacancy rate of 4 per cent would probably meet all usual requirements.[1] Throughout this study, however, only minimum assumptions have been brought into the count and

[1] For a discussion of the vacancy rate in Great Britain, the United States and Canada, see Lewis Duncan: *Report on Housing for the City of Toronto*, June 23, 1942, p. 41. It is important to remember that the vacancy rate relates only to dwellings not occupied because of shifts of population, so that no allowance is made for any dwellings which may remain vacant because they are too small to accommodate large families. This is a special case of which account should be taken (see Chapter 4).

succeeding calculations are based on a minimum vacancy rate of only 2 per cent. Partial justification is present in the fact that some of the dwellings vacated by war workers and their families are in small cities and towns, from which they have moved, making an allowance for a desirable vacancy rate of 4 per cent unnecessary for these areas. On the basis of a 2 per cent vacancy rate, the major cities would require an additional 16,000 dwellings and the other urban centres about 13,000 dwellings, a total of 29,000 units to provide a minimum flexibility for a shifting population.

Current shortages as of 1946, on all three counts listed above, total 114,000 units.

(b) *Overcrowding*

There were 1,433,000 families living in urban Canada in 1941. Preliminary estimates indicate that about 250,000 of these families were sharing about 100,000 dwellings; in other words, 100,000 families can be considered as main occupiers and the remaining 150,000 as lodging families. The Dominion Bureau of Statistics has estimated that there were 110,000 lodging families in the major cities[1], the remaining 40,000 lodging families being found in the smaller cities and towns. If each of these 150,000 lodging families is to be supplied with a separate dwelling unit, an equal number of new housing units will have to be built.[2]

It has been further estimated that there were about 88,000 non-family groups which maintained separate households in dwellings shared with families and non-family groups (e.g., a married couple taking two working girls into their one-family house and providing separate cooking facilities for them). No doubt, most of these non-family groups living in separate households in single dwellings would prefer their own small apartment if rents were sufficiently low to fit their purse. Although this group represents a special case and can be catered for mainly by the provision of small apartments or flats, it should not be forgotten, even though statistics available at present do not allow for the exact measurement of needs. If it is assumed that only half of them will be able to afford the rent charged for small apartments, if these are available in sufficient numbers, while the other half may be content to continue sharing its accommodation, this would still establish a need for 44,000 dwelling units. There may also be some doubling-up of families which is undertaken voluntarily (e.g., a family with children and a married son and daughter-in-law living in the same premises), but these types of voluntary doubling-up are less frequent than those necessitated by financial considerations. Allowances for such factors is made in considering the dimensions of the immediate housing program later on.

To simplify the presentation, it is proposed to disregard for the moment the fact that a substantial number of obsolete and substandard housing units are included in the 1,437,000 dwellings in existence in 1941. To provide every family and non-family group with a dwelling of its own, it would be necessary to increase the existing housing supply of 1,437,000 dwellings by 194,000 units (150,000 and 44,000), i.e., to a total of 1,631,000.

Estimates of the new dwellings required to alleviate overcrowding in the main metropolitan areas have been discussed in Chapter 5. It was indicated there that there are in these areas 62,000 lodging families in the low income group and 30,000 in the medium income group in need of re-housing. The complete elimination of overcrowding would require an estimated additional

[1] Dominion Bureau of Statistics, Bulletin on Overcrowding in Canadian Cities of 30,000 Population and Over, Housing Census, 1941.

[2] The terms "lodging families" and "doubled-up" families are used here synonymously, the reference being, however, only to families and not individuals or non-family groups. The basic assumption is that a satisfactory housing standard will not have been reached until a separate dwelling unit (one-family house, apartment, etc.) is assured for each family and non-family household which desires to live in its own quarters. The housing requirements of the latter group should perhaps be assessed by reference to the earnings of the members comprising the household, but those of the former group should be taken care of irrespective of the income level.

20,000 housing units to provide separate dwellings for a like number of lodging families in the upper income group. We thus arrive at a total need within the bounds of the 12 main metropolitan areas of 112,000 new dwellings, assuming that it is proposed to provide a separate unit for each family now forced, by physical shortages or for reasons of economy, to share its accommodation with others. This figure is very close to the re-housing need for doubled-up families (110,000) as computed for the 27 major cities.

(c) *Substandard Housing and Slum Clearance*

A first approximation to the minimum number of old and substandard dwellings necessitating replacement (Chapter 4) yields a figure of 175,000 units, comprising 125,000 dwellings in the major cities and 50,000 in the smaller cities and towns.[1]

(d) *Special Allowance*

As pointed out before, it is the "census urban" area which is covered by the above estimates. It has been estimated that the housing deficit on all counts in the non-incorporated communities forming part of the main metropolitan areas amounts to about 17,000 units.

Accordingly, as summarized in Table 45, the total accumulated building need in 1946, based on *current shortages, overcrowding* and *replacement* of substandard and slum dwellings, involves about 500,000 units for all urban centres in Canada.

II. *Immediate Program*

Difficulties in organizing public housing projects, which of necessity will form an important segment of a large-scale national housing program, now have to be acknowledged. Taking this into consideration, the liquidation of an accumulated building need of 320,000 units, or about two-thirds of actual requirements, is recommended as a basis for an immediate program spread over a twenty-year period. If experience with public encouragement of private house-building and with direct public housing schemes during the first decade after the war is satisfactory, the dimensions of the program in the second decade should be planned on a larger scale in order that a complete liquidation of the accumulated building need might take less than the thirty years required on the basis of 160,000 units per decade. The components which make up the accumulated building need whose liquidation by means of an immediate program is here recommended are shown in detail in Table 45. The immediate program includes the full replacement of all substandard and slum dwellings, while allowing for some overcrowding arising from the fact that a proportion of doubling-up will remain after the immediate program is completed. In statistical terms, this means that in the computation of the immediate program, no allowances are made for the housing needs of non-family household groups or for a desirable vacancy rate.

Desirable and Minimum Annual Building Need

The annual building need may be defined as the number of new dwellings required in the course of one year to provide for (*a*) the *increase in population* and (*b*) the orderly *withdrawal* from the existing housing supply *of dwellings becoming obsolete* during the year. Building need in this sense is a variable depending, on the one hand, on the rate of population growth and on family

[1] Although this estimate has been based on carefully chosen criteria and made conservatively in the light of census information, a method is available by which the estimate may be checked. This is the "block method" of using Housing Census data for estimating the requirements for replacement and rehabilitation in blighted city areas. The technique of such an examination, as used in the United States as an indicator of the dimensions of a housing redevelopment program, is described in Statistical Note E.

formation and dissolution, and on the other hand, on the rate of obsolescence, which is determined by the type of structure and the environmental factors to be found in the major cities. Because of this, it is not possible to forecast accurately housing needs for any length of time unless it is assumed that the population remains static or that its growth is expected to follow a prescribed schedule, and, at the same time, that a minimum rate of replacement is accepted, below which it is not proposed to go. It is possible, however, to give some approximate idea of the annual building need of this country for the *immediate* post-war period. In the years to follow, this figure can be adjusted upwards or downwards, depending on Canada's population growth (including the rate of family formation) and on the dimensions of a desirable campaign against substandard and slum housing.

Since this country experienced little immigration during the period 1931-1941 and depended mainly on natural growth, it is reasonable to assume that the population increase during 1941-1946 will be of the same proportions as during the preceding decade.

Consideration has also to be given to the formation and disintegration of families. In other words, account of the number of marriages and deaths has to be taken in order to determine how these factors affect the demand for new housing. The period 1931-1941, figures for which form the basis of a projection for the following five years, show an abnormally low rate of family formation at the beginning and an extremely high rate towards the close.[1] It is to be expected that the rate of family formation during 1941-1946 will be somewhat similar, though reversed in sequence. While marriages continued to take place in increased numbers after 1941, it is probable that the abnormal marriage rate tapered off in 1943 and that it will continue to decline until the end of the war when it will, in all probability, gain a new impetus as many young men return from overseas service. Another factor which should not be neglected is the number of Canadian men who have married in Great Britain and who will return to this country after the war with their wives and children. The death rate, the main factor affecting family dissolution (changes in the rate of divorces and separations are insignificant) declined slowly and fairly steadily during the last decade, and this trend is continuing.

If it is agreed that the 1931-1941 data on family formation serve to indicate the possible housing requirements (accumulated from 1941) in 1946, the following figures are arrived at: 24,000 new families and 6,000 new non-family household groups, requiring a total of 30,000 new dwellings in urban areas. This estimate takes into account the number of families dissolved, but no consideration is given to the number of families of industrial workers which flocked to the major cities on account of the war. Allowance for this group, so far as they may want to remain in their new places of residence, has been made in a preceding section.

In addition to estimating the number of dwellings required to house the population increase, due allowance has to be made for a minimum number of new houses required to replace dwellings becoming obsolete each year. The term "annual replacement rate" is used to describe the proportion of dwellings destroyed or demolished in the course of a year to the number of dwellings in existence at the beginning of the year. In this sense replacement involves the addition to the housing supply of only as many dwellings as are withdrawn from it by demolition. In doing this, the housing standard is not improved to any appreciable extent, since only those houses which have become obsolete in the

[1] The depression following 1929 caused a marked drop in marriages. For the whole of Canada, marriages numbered 77,083 from June, 1929 to May, 1930, as against 61,857 during the same months of 1932-1933, a decline of about 20 per cent. A betterment of economic conditions from 1934 onwards brought a steady increase in the number of marriages which, at the beginning in the present war, reached a figure not hitherto experienced in Canada. From June, 1940, to May, 1941, marriages numbered 126,195, or 65 per cent more than those of the peak year of the prosperous twenties.

course of the year are eliminated, while substandard dwellings accumulated in previous years are not replaced. Building dimensioned by the annual replacement rate, would be entirely satisfactory only if our cities had not acquired a great number of substandard dwellings in the past. Since account has already been taken of the stock of substandard dwellings accumulated in the past, however, concern is given here only to the *annual* replacement rate.

The replacement rate is conditioned by the life-expectancy of residential buildings. A number of factors have to be taken into account, including quality and type of building materials, soundness of construction, degree of upkeep and maintenance and environmental conditions. Obviously, the life-expectancy of houses in Canadian cities and towns will vary, not only because of these factors, but also because of the varying effect of the climate on houses situated in different regions. For example, a house without a foundation will deteriorate more quickly in the Maritimes than in British Columbia. The present calculations have been based on an annual replacement rate of 2 per cent, i.e. an average life-expectancy of 50 years for houses situated in urban areas. It is, indeed, felt in some quarters that a life-expectancy of 50 years is too high, considering that many houses are of shoddy construction and in need of replacement after 30 or 40 years. While this is certainly true of some houses, there are others which have been soundly constructed and which have been kept in such good repair that they, at 70 years, look and wear better than many houses 30 years old. It is for this reason that 50 years has been suggested as an average figure to be used solely for the statistical purpose of determining the annual building need. As pointed out before, there are a number of factors which have to be taken into account in determining whether or not a house is obsolete and in need of replacement. A careful scrutiny of the criteria of obsolescence will probably suggest that houses marked for replacement will vary between the ages of 30 and 70 years, if not even more widely. It is, however, likely that the *average age* will be somewhere in the neighbourhood of 50 years for cities and towns as a whole.

In 1941, dwellings in urban Canada totalled 1,437,000 units, 175,000 of which have been taken as a minimum number in immediate need of replacement. This leaves 1,262,000 dwellings, to which should be added an allowance for dwellings in non-incorporated communities forming part of metropolitan areas. The total number of dwellings which should be replaced in the next fifty years by annual quotas is in the neighbourhood of 1,350,000 units. The adoption of a rate of two per cent yields a figure of 27,000 units as the number of dwellings requiring replacement each year.[1]

By combining the number of dwellings required to house the population increase with the number in need of replacement, 57,000 units is arrived at as the *actual annual building need* for all urban centres in this country in 1946.

It must, however, be recognized, as was done in connection with the computation of the accumulated building need, that difficulties in the organization of a substantial public housing program may make it impossible to take care of the annual building need during the first ten years after the war, and that we shall have to be content with concentrating on the most urgent housing needs leaving substantial improvements of housing standards to the second and perhaps the third post-war decades.

Accordingly, a *minimum* annual building need was computed for the first ten-year period. Under this heading are included new homes for the net increase of families (24,000), no allowance being made for non-family household groups and for half the number of dwellings scheduled for replacement for wear and

[1] If the annual replacement is below two per cent, a new housing deficit will come into existence, even if enough dwellings have been built to liquidate the backlog of residential construction in existence today. In other words, the annual replacement rate of two per cent is valid only if a steady program of replacement is carried out.

tear (13,500), a total of 37,500 units. As indicated previously in this section, the number of dwellings to be withdrawn regularly from the housing supply will have to be increased in the period following the first post-war decade, if a new accumulation of substandard and slum dwellings is to be avoided.

A minimum housing program for the urban section of the Dominion should thus, for the first postwar decade, be in the neighbourhood of 535,000 units, with upward or downward adjustment to be made depending on the rate of population growth and our postwar immigration policy. This figure is composed of half the accumulated building need (160,000) and the minimum annual building need (ten times 37,500).

C. Housing Requirements in Rural Non-farm Areas

Housing conditions and requirements in non-incorporated communities and frontier settlements, summarily described as rural non-farm areas (see Chapter 4), are different from those of large urban centres, which are the only areas for which a concentrated program of slum clearance and replacement of substandard dwellings can be instituted. Nevertheless, some of the types of housing may require urban rather than farm legislation to fit them into the national program. Even though some of the communities concerned are rural in character, they do not present the same housing problems as farm areas, where each house is situated some distance from the next habitation. It is possible that special legislative provision may be necessary, but it is assumed for the purpose of assuring them a place in the national computation, that urban housing legislation will be flexible enough to take care of the needs of non-incorporated village communities, frontier settlements, and other residential units included.[1]

The total number of dwelling units in rural non-farm areas totals nearly 400,000, but they are widely scattered. Since there has been considerable migration from many of these districts, these regions have a number of vacant properties, but their type of structure and state of repair are frequently poor.[2] Because of the variations in conditions and uncertainties in interpretation, the criteria applied in estimating housing needs of these areas have been put lower than those for other regions.

In a computation of the accumulated building need in these areas as of 1946, consideration is given only to the minimum number of dwellings in need of replacement, no allowance being made for overcrowding and current shortages, since the considerable population movement from these areas does not permit any accurate measurement of housing adequacy. The proportion of dwellings in need of external repairs in rural non-farm areas in 1941 was 29·5 per cent, or substantially higher than the proportion for the major cities (16.5 per cent) and for the smaller cities, towns and incorporated communities (24.7 per cent), though below the proportion for farm areas (39·4 per cent). Applying the proportion of 29·5 per cent to the total number of dwellings in non-incorporated communities and frontier settlements, about 115,000 dwellings appear to be in need of external repairs.[3] As pointed out before, this figure does not divulge the number of dwellings in need of repairs and improvements which are not discernible from the outside. However, in order to make a conservative estimate of the replacement program in these areas, only 20 per cent of the dwellings in need

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[1] Non-incorporated parts of metropolitan areas are specifically excluded from "non-farm rural" as used in this report. A schedule for geographical demarcation of farm areas based on the Dominion Census of 1941, is outlined in Appendix G.

[2] The number of vacant dwellings in rural non-farm areas represents a much smaller proportion than is generally recognized. In 1941, only about 14,000 or three per cent of the total supply of homes in rural non-farm areas (census definition) were listed as vacant. The apparent surplus of dwelling units over families is explained by the fact that many of the dwellings are occupied by non-family household groups.

[3] This figure differs from the one shown in Table 85 of the Statistical Appendix, in that it relates to rural non-farm areas, excluding non-incorporated communities forming parts of metropolitan areas, while the statistics shown in the appendix relate to rural non-farm areas as defined in the Census.

of external repairs are considered as a minimum number of units requiring replacements.[1] Thus a replacement program for these areas would be of the order of 23,000 units, of which half or about 11,000 are recommended for inclusion in the immediate program during the first post-war decade.

Two factors have to be taken into account in estimating the annual building need for rural non-farm areas: (*a*) Assuming that in 1946 and in some of the following years the population growth will be of a somewhat similar order as in the decade previous to 1941, an annual net increase of 6,000 families can be expected. To allow for possible migration and a degree of voluntary doubling-up, new dwellings for only two-thirds of this number, or 4,000, is taken into the computation of the immediate program. (*b*) In making allowances for annual obsolescence accruing in the future, an arbitrary minimum of 2,000 units (about half of one per cent of the total number of dwellings) is added. The annual building need in rural non-farm areas thus totals 6,000 units.

On this basis, liquidation of half the backlog (11,000), plus allowance for population increase and recurring obsolescence after 1946, which would call for 6,000 units annually, gives a total for inclusion in the main program of 71,000 units for the first decade. This is a comparatively small figure for an area with over one-and-a-half milion people and high rates of growth in some sections.

D. *Implementation of the Program*

1. *Distribution of the Urban Housing Program*

Having acquired some quantitative idea of housing needs as they will exist in 1946, it is now possible to consider the length of time which may have to elapse before an entirely satisfactory standard of housing accommodation can be attained, consideration for the moment being confined to urban requirements.

The most desirable solution would be to liquidate the actual accumulated building need (500,000 units) in a twenty-year period and, at the same time, to build sufficient homes to house normal population increase and secure the replacement of houses becoming obsolete in the future (57,000 annually). This would require a building program of 82,000 units a year for the first ten-year period for all urban areas (including non-incorporated communities forming parts of metropolitan areas). Allowing for possible difficulties in organization discussed above, however, a minimum target of smaller dimensions has been computed. For all urban areas, during the period 1946-1955, this may be set at 535,000 units (160,000 plus 375,000) consisting of:—

(*a*) Half the *minimum accumulated building need,* estimated for 1946 at 160,000 units;

(*b*) The *annual building need,* taking care of new families (excluding non-family household groups) and half the number of dwellings which should be replaced in order to assure an orderly withdrawal of old and dilapidated buildings estimated at 37,500 units annually, or 375,000 units for the first decade. An endeavour should, of course, be made to eliminate the worst and most obsolete slum dwellings first, and thereafter, to proceed with replacement of "worn-out" houses elsewhere.

[1] In seeking some guide for the replacement needs, a substantially lower proportion of the total number of dwellings has been taken for rural non-farm areas than for urban areas. Dwellings slated for replacement made up 15·4 per cent of all units in the major cities. 8·1 per cent in the smaller cities, towns and incorporated communities, and only 6 per cent in non-incorporated communities and frontier settlements.

TABLE 46.—ESTIMATED CANADIAN HOUSING REQUIREMENTS DURING THE FIRST POST-WAR DECADE. (NUMBER OF DWELLING UNITS)

Type	Urban areas [1]	Non-incorporated communities	Total
Accumulated building need			
1. Half of minimum requirements (see Table 45)	160,000	11,000	171,000
Current building need			
2. Estimated net increase of families during decade [2]	240,000	40,000 [3]	280,000
3. Current replacements (half of total) [4]	135,000	20,000	155,000
Total	535,000	71,000	606,000

[1] Non-incorporated parts of metropolitan areas are included.
[2] No allowance made for housing accommodation needed by non-family groups.
[3] The total family increase has been estimated at 60,000 but a contribution of only two-thirds of this figure (i.e., assuming some voluntary doubling-up) is taken as a basis for a minimum estimate.
[4] Based on an *average* life expectancy of urban homes of 50 years, the annual replacement rate amounts to two per cent of the total housing supply in existence at the beginning of the year. For non-incorporated communities, a replacement rate of only one per cent has been taken.

Although it is possible to project possible and desirable programs for the first postwar decade (535,000 units), it is difficult to make recommendations on the dimensions of a housing program in the following decades. However, certain principles may be set down as a guide in formulating a positive housing policy for the farther future.

a. The immediate program suggested takes care of roughly one-third of the full accumulated building need computed as of 1946, or half of what has been considered a minimum. At this rate it would take about thirty years to liquidate the building need accumulated by 1946. If it is desired to wipe out our building deficit in less than thirty years, then a larger proportion of the accumulated building need will have to be allowed for in the housing program of the second post-war decade.

b. Assuming a degree of voluntary doubling-up, no allowance for new non-family household groups has been made in the immediate program. If the housing needs of such groups are to be taken into account for 1956 onwards, the annual building need will have to be increased correspondingly.

c. The regular withdrawal of out-of-date buildings is a key to avoiding the creation of new substandard and slum dwellings. An average life expectancy of fifty years for urban dwellings was considered appropriate, involving an annual replacement rate of two per cent. However, an annual replacement rate for wear and tear of only one per cent was taken in the computation of the immediate program. An increase of this rate for the second postwar decade is desirable, particularly since less difficulties in organizing a large-scale housing program are likely to be encountered during this period than are to be expected in the preceding period.

From what has been said above, it follows that, adjusted for population changes, the housing program for all urban areas during 1956-1965 should be substantially larger than the program of 535,000 units recommended for the period 1946-1955.

2. *Dimensions of the Total Program*

If the rural non-farm areas are added to the urban areas proper (so as to give totals for all housing other than specifically farm housing), for the decade following the conclusion of the war, a minimum housing program should be in the neighbourhood of 606,000 units. It may be noted that this estimate is a

good deal lower than some that have been mentioned. It is below, for example, the one made by Mr. Frederic Babcock, a housing authority in the United States (quoted by Mr. A. R. Adamson in the House of Commons in February, 1943) which indicated that Canadian postwar housing requirements would vary between 750,000 and 1,000,000 units during the first ten years following the end of the war.[1] Considerably higher figures were quoted at a conference held by the Ontario Association of Architects in Toronto in February, 1943, when the housing need for the first ten years after the war was put at between 1,140,000 and 1,450,000 units.[2]

It is of interest to compare the dimensions of this suggested program with estimates of housing requirements in comparable countries which have received more or less authoritative sanction and to place the figures for Canada on a per capita basis. The dimensions of housing programs in Great Britain, New Zealand and the United States are shown in Table 47 at the figures they would be if scaled to the Canadian population. It is striking that in all instances the (scaled) program for the first post-war decade ranges between 750,000 to 1,000,000 units. The additions to be made on account of farm housing on a minimum basis (Chapter 10) would still leave the aggregate Canadian figure below the lower of these boundaries.

TABLE 47.—DIMENSIONS OF CANADIAN HOUSING PROGRAM DURING THE FIRST POST-WAR DECADE, COMPARED WITH THOSE CONTEMPLATED BY GREAT BRITAIN, NEW ZEALAND AND THE UNITED STATES.

Country	Contemplated housing programs		Canadian housing program proportionate to those of other countries	
	Lower boundary	Upper boundary	Lower boundary	Upper boundary
Great Britain	3,000,000	4,000,000	750,000	1,000,000
New Zealand	108,000	—	756,000	—
United States (non-farm)	9,000,000	12,000,000	750,000	1,000,000

Sources:—(1) Britain: *The Economist* (London), July 31, 1943, p. 132. (2) New Zealand: Report by the Department of Housing Construction, Wellington, N.Z., 1942. Figures rounded to nearest thousand. (3) United States: M. L. Colean, *The Role of the House-building Industry*, National Resources Planning Board, Washington, D.C., 1942, p. 3.

None the less, a housing program of 606,000 units for the first ten years after the war may at first sight seem large. It does in fact involve the construction of more than twice as many dwelling units as were built during the last decade. It must be borne in mind, however, that Canada has never yet had in operation a substantial public housing program, especially one designed to meet the housing requirements of low-income families, urban and rural. Another point has also to be considered. The term "house", referring to buildings and structures rather than to dwelling units, is frequently used in housing discussions. If the ratio of residential buildings to dwellings which obtained in 1941, i.e., 1:1.4, is applicable to post-war conditions, a program of 606,000 dwellings means a need for only 433,000 residential buildings of all kinds. If group projects (including apartments) were to be favoured considerably more than at present, the number of separate buildings would be further reduced. Other economies in construction, including the new technologies which are receiving growing attention, also affect the extent to which this is to be considered an easily attain-

[1] A. R. Adamson, Member for York West, Statement in the House of Commons on Thursday, February 18, 1943, Hansard, Vol. LXXXI, No. 16, p. 545.

[2] Canadian Institute of International Affairs, *Homes or Hovels*, "Behind the Headlines" Series, Toronto, Vol. 3, No. 5, 1943, p. 36.

able target or otherwise. It is obviously desirable to express the requirements in terms of dwelling units, but the qualifications which attach to constructional dimensions must not be forgotten.

3. *Timing.*

On the above basis, 60,600 units annually would be built in Canada during the first ten years. It does not follow, however, that an equal number should be built steadily each year. The housing program should undoubtedly be subject to a flexible margin for the purpose of fitting it into the larger framework of post-war policy, aiming at economic stabilization and "full employment".

A proportion of the volume of residential construction made subject to systematic distribution over time in this way, can only be illustrated on the basis of some assumptions as to the conditions which are likely to exist. Judging from the course of events after the last war, for example, ignoring for the moment the effect of counteracting policies set in motion to provide stability, the following might be the pattern.[1] (The first post-war year, a year of full construction, is asumed to be 1946.)

1946-1947: *Reconversion period.* Contraction of economic activity because of cessation of war orders, gradual demobilization of men and women from the armed forces.

1948-1950: *Re-equipment boom and new consumer goods production.* Markets buoyant on accumulated purchasing power and dammed-up demand for consumer goods.

1951: *Peak of economic activity* and possible turn towards a depression.

1952-1954: *Rapid contraction* of economic activity with a possible low in 1954.

1955 and following years: *Hesitant and slow recovery.*

The above pattern may obviously be affected by special factors, particularly a conclusion of the war in Europe with military operations continuing in the Pacific, which would make a partial industrial conversion from wartime to peacetime production possible, and diminish the dislocation of economic activity consequent on abrupt cancellation of war contracts.

Since publicly-aided housing is one of the most obvious and useful instruments in a stabilization program, it would be reasonable to prepare a housing program consisting of three phases:

(*a*) Immediate reconversion period. Substantial development programs (including conservation of natural resources and public works, besides private and public housing) may have to be brought into operation to take up the temporary slack in employment, while military and civilian demobilization is proceeding, and factories are converting their equipment and "tooling up." It is conceivable that a minimum program of 50,000 units might be adequate. It is equally likely that a larger program, for example, 60,000 units in 1946 rising to a higher figure such as 68,000 units in 1947 might be necessary, or the two objectives might even be reversed.

(*b*) Peace-goods production boom. During this period, lasting, say, three or four years, residential construction could be allowed to contract, say to 52,000 units in 1948, 44,000 in 1949, 40,000 in 1950, followed by a slight rise to 48,000 in 1951. In other words, the aim would be towards a retarded housing program as one of the means of counteracting an unhealthy boom. This contraction of residential construction, if privately financed house-building should still be on the upswing, could be achieved by a reduction of publicly assisted house building (it should not be discontinued completely, lest the

[1] Detailed studies of economic conditions after the last war and their implications for the period following the present war, are made in two reports prepared for the Advisory Committee on Reconstruction: *Sequence of Economic Events in Canada, 1914-1923*, Report I by Dr. A. W. Turner and *The War and Postwar Cycle in Canada, 1914-1923*, Report II, by Dr. B. H. Higgins. The above generalizations are based on these.

continuity of the administrative machinery should be lost) and by government appeals to the public to postpone plans for new houses for two or three years, when a slack in employment might be expected. If appeals of this kind are not heeded, an announcement of governmental intention to implement subsidies (or tax rebates or other incentives) for houses constructed in the future, might serve to induce private individuals to postpone house building temporarily.

(*c*) A substantial increase of residential building activity as an integral part of a normal development program. This would involve increases, rising to a moderate peak, such as are suggested in Table 48.

The obvious advantage of this pattern, if it holds good, is that it gives time for preparation for a peak-load effort, including the accumulation of experience in administration, and study and preparation of the best designs.

These figures (applied to the minimum program in Table 48) of course serve only as a broad indication of the possible situation in the first post-war decade. The counteracting effects on unemployment and depression to which they point will be within reach only if plans are made ahead of time and effectively executed. Similar considerations are applicable in the timing of the farm housing part of the program, a hypothetical schedule for which is included in Table 48.

The possibility must be faced, of inability to adhere completely to the pattern suggested for technical reasons (e.g. lack of seasoned lumber in the first post-war year). Thus, particularly in the first two years, the housing program may remain considerably behind the expected dimensions. In this case, a proportionate increase of the number of dwelling units to be built in the years to follow would be necessary, if the minimum goal of 606,000 units during the first post-war decade is to be attained. What matters, however, is that the principles guiding a positive post-war housing policy should not be obscured by difficulties of a temporary nature.

Some further light on the matter of timing may be cast by comparisons with proposals recently submitted to the Government of New Zealand and advocated by some writers in Great Britain. The appended table shows a Canadian housing program apportioned in size and timing to the New Zealand and British programs and a Canadian housing program designed not only to provide needed housing accommodation, but also to serve as an economic weapon in the attainment of full employment during the first post-war decade.

TABLE 48.—SOME COMPARATIVE DISTRIBUTIONS OF HOUSING PROGRAMS DURING THE FIRST POST-WAR DECADE

Post-war years	Flexible Canadian program proposed			British program (unofficial)	New Zealand program	Canadian program apportioned to	
	Urban and non-farm	Farm areas	Total			Britain	New Zealand
1	60,000	10,000	70,000	300,000	12,000	75,000	84,000
2	68,000	12,000	80,000	385,000	14,000	96,000	98,000
3	52,000	8,000	60,000	400,000	16,000	100,000	112,000
4	44,000	6,000	50,000	400,000	9,400	100,000	66,000
5	40,000	5,000	45,000	400,000	9,400	100,000	66,000
6	48,000	7,000	55,000	400,000	9,400	100,000	66,000
7	73,000	12,000	85,000	350,000	9,400	87,000	66,000
8	85,000	15,000	100,000	350,000	9,400	87,500	66,000
9	74,000	11,000	85,000	350,000	9,400	87,500	66,000
10	62,000	8,000	70,000	350,000	9,400	87,500	66,000
Total	606,000	94,000	700,000	3,685,000	107,800	921,000	756,000

Source: Table prepared by research staff, Advisory Committee on Reconstruction. Figures for New Zealand from Report by the Department of Housing Construction, Wellington, N.Z., 1942. Figures for Great Britain from unofficial computation prepared by M. A. Abrams ("The Demand for Dwellings in Great Britain after the War." *Agenda*, London School of Economics and Political Science, November, 1943, p. 375.

There is no doubt that endeavours to manage housing policy in such a way that the execution of programs will absorb men when they are idle and release them when there are jobs for them in other industries will face difficulties. Some builders and contractors may object, pointing out that the public should not be discouraged from building as much as it likes in prosperous times. Many would-be customers who postpone building houses for a while may later decide not to build at all. Some organized groups of construction workers may object on the grounds that a decline in residential construction may force them to work on other construction jobs or even in other industries. Some industries may complain of restrictions on private initiative, and so forth. Complaints of this type, although they can be disproved, may make it difficult to adhere to the policy which will be most advantageous to the well-being of the economy in the long run. The implication is that the policy can be carried out only if it is accompanied by a broad educational program which will make clear to industrialists and workers alike, as well as to the public as a whole, that the underlying purpose of postwar economic policy is to maintain full employment, and that the housing program itself is on a long-term basis, guaranteeing some measure of stability in itself at all times, though subject to contraction or expansion whenever this is desirable.

4. *Financial Considerations.*

For various purposes, including the relation of housing to a long-term "investment budget",[1] it will be helpful to gain some idea of the costs involved in housing programs of representative dimensions and components. It is convenient to compute these on a 50,000 unit basis: but in general they should be regarded as only broad indicators of financial requirements with upward or downward adjustment to be made in accordance with employment trends, besides due allowance for possible changes in construction costs.

Construction costs per residential unit may easily vary between $1,000 for a farm home and $10,000 or more for a high-priced one-family house in a fashionable suburb of one of the large cities. It is difficult to strike an average as to cost per unit for all houses to be built after the war, but from past experience it is reasonable to assume that average costs per housing unit in the immediate post-war period may be around $4,000.[2] On this basis, a program of 50,000 units will involve an expenditure of the order of $200 millions. It is probable, however, that the total outlay will be somewhat below that figure since low-rental units are almost certain to be brought into the programs planned on a cheaper basis than houses built for ownership; much will therefore depend on the exact dimensions of a low rent housing program.

As a reasonable target for the first full year, it may be assumed that 30 per cent of a 50,000 unit program, or 15,000 dwellings, should be low-rent houses with 35,000 units being built by private capital, whether for home-ownership or rental purposes and whether assisted under National Housing Act provisions or not. Preliminary calculations of costs of a large-scale low rent housing development indicate a variation of expenditures between $2,500 and $4,000 per unit, depending on its size and location, with a possible average cost in the neighbourhood of $3,000. On the basis of these dimensions, the total outlay for all new residential construction in 1946 will probably amount to approximately $180 millions, because of lower average costs per unit in a public housing scheme.

To obtain some idea of how the total may be divided between private and public funds, the possible scope of post-war operations under the National Housing Act must be considered. During the administration from 1935-1943 of the Dominion Housing Act and the National Housing Act, the largest number of

[1] See *Report of Advisory Committee on Reconstruction*, pp. 26 ff.

[2] Average construction costs of over 25,000 housing units erected under the Dominion Housing Act, 1935 and the National Housing Act, 1938, during eight years operation were slightly below $4,000 (excluding farm units).

units financed in any one year was approximately 6,000 (in 1938). If it were possible to double this program in 1946 through the broadening of the provisions of the National Housing Act (as recommended elsewhere in this report) operations under this Act would involve an expenditure of $48 millions. Loans under the National Housing Act would probably vary between 80 and 90 per cent of the appraised value. If an average of 85 per cent is taken, the contribution of the borrowers towards the total of $48 millions will be slightly less than $8 millions, the remaining $40 millions being divided between lending institutions and the Dominion Government, with the latter contributing $10 millions or 25 per cent. It might well be, however, that prospective home owners and apartment house builders will find terms under the National Housing Act so attractive that twice the number assumed above will make use of the provisions of the Act. If this were the case, the Dominion Government's contribution would rise to $20 millions, with the remaining $76 millions coming from lending institutions and private sources.

To summarize, therefore, it can be said that a 50,000 unit program, including 15,000 low rent dwellings, involving an expenditure of $180 millions would require loans from the Dominion Government of the order of $55 - $65 millions, or between 30 and 36 per cent of the total outlay. In addition to the above loans, allowance must be made for direct expenditures for administration of the housing acts, town and country planning, slum clearance, experimental building and research and standardization of construction materials.[1] Such a federal expenditure for the first post-war year should be well within the budget of the Canadian national economy. Indeed one of the doubts which must arise in the mind of the modern economist is whether such a sum can have sufficient "leverage" effect to be helpful in maintaining the national income at present levels.[2]

Taking the above estimate as a basis, the construction of 606,000 urban and non-farm housing units suggested as a minimum target during the first post-war decade would involve an expenditure of $2,180 millions. If, furthermore, allowance is made for 94,000 farm homes at an average cost of $1,500 per unit, this would involve additional expenditures of about $130 millions, or a total program for the first ten years after the war approximating $2·3 billions. This makes no allowance for costs of replanning, land acquisition, slum clearance, communal facilities and other expenditures necessarily connected with a large-scale housing program. These might easily mean total disbursements, under a ten-year program, of $3 billions. Only a part of this, of course, would be from governmental sources.

5. *Employment and Training Requirements.*

Finally, in view of the frequently expressed opinion that residential construction activity has a large contribution to make to employment after the

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[1] Unfortunately, an exact measurement of past residential construction, for comparative purposes, is not possible; but estimates from (*a*) the statistics of contracts awarded, and (*b*) the figures of Table 3, assuming $4,500 as the average unit cost, indicate a volume between $120 million and $200 million for the best years of the 'twenties. On the basis examined in the text above a post-war program averaging 70,000 units would involve residential construction expenditure of about $230 million annually. This contemplated increase of the volume of residential construction should be viewed in the light of recent accomplishments. The total of *all* construction reached $635 million and $640 million in 1942 and 1941 respectively, when most of the work was for wartime industry and house-building was severely restricted. This constituted nearly a doubling of the capacity of the industry in four years.

[2] The aggregate of on-site and off-site employment actually does not represent the total effect of construction expenditure. Additional employment is also generated by the expenditure of wages, salaries and other incomes received by those working in the construction industry proper and in the auxiliary industries. This type of employment, described as *secondary* employment, is now generally applied to the effects which increased employment in the producer goods industries has upon the consumer goods industries. The subject has been examined in detail for Canada in the report prepared for the Committee on Reconstruction on *The Construction Industry in Relation to Post-war Economic Policy*, (preliminary Report I, November, 1942) by O. J. Firestone.

war, it is desirable to determine as precisely as possible what volume of employment might be provided by a housing program such as is outlined in this report. A 50,000 unit program is again used as a basis.

In this computation, a distinction has to be made between *on-site* or direct employment, that is, employment at the actual point of construction, and *off-site* or indirect employment, that is, employment which is directly attributable to the construction project but which is occasioned elsewhere, primarily in the extracting, manufacture and transportation of construction materials.

A recent study, based on the analysis of the construction of more than 25,000 housing units, shows that each dwelling provided, on the average, about 2,300 man-hours of on-site and about 3,000 man-hours of off-site employment, or a total of 5,300 man-hours in all.[1] With this average as a basis, a 50,000 unit program would provide 265 million man-hours; or, if the average working year is taken to consist of 2,000 man-hours, employment for about 133,000 men. Since the number of man-hours which make up the full working year of the on-site worker is considerably smaller than the number of man-hours worked in factories or offices (*i.e.*, because the seasonal unemployment of the building worker is substantial), the total number of jobs provided for a full year will probably be nearer the 150,000 mark.

It is possible, however, that the volume of employment provided by a housing program in the post-war years may be somewhat lower than indicated above. The scope of the reduction in man-hours will hinge upon the degree to which prefabrication and sub-assembly methods are applied to house building, as well as upon the dimensions of the program itself. The average cost per unit will certainly be lower, requiring fewer man-hours to complete the job, if 70,000 or 80,000, rather than 35,000 or 40,000 units, are constructed annually. It is reasonable to assume that the construction of houses after the war will be carried out more efficiently than before the war, particularly after the acquisition of experience with large-scale housing projects. If this is so, the employment provided by a residential construction program after the war may be anything from say 10 to 20 per cent lower than estimated above. On the other hand, it is important to add that the utilization of prefabricated parts, sub-assembly units, and factory methods of production, do not necessarily entail a decrease in aggregate employment; it is not difficult to envisage a housing program of a scale which would require all building craftsmen available, and still need the economies and speed of mass-production techniques to attain its objectives. The implication is that not only building trades employment, but training schemes and labour-transfer programs must be considered on a comprehensive approach to a national rehousing enterprise.

To ensure the carrying out of a substantial construction program including not only residential but other kinds of construction, it is estimated that a short-term training program involving 40,000 men will have to be undertaken in the first two or three years after the war. Perhaps only one-third to one-half of this number will be required to meet shortages specifically in the house building field, with the remainder being needed primarily in other fields of construction. If this seems large or surprising, it should be noted that, on a per capita basis, Canadian requirements as thus visualized are 20 per cent or so below those of post-war Britain. In February, 1943, the British Government announced that it is planning a post-war construction program which will give employment to 1,250,000 men. In order to meet the shortage of skilled labour, provision is being made for the training of 200,000 persons during the first three to four post-war years, mainly by special training courses given to adults. In Canadian population terms, this would mean the training of about 50,000

[1] *The Labour Value of the Building Dollar, op cit,* p. 36.

adult construction workers. A minimum target of 40,000 new building mechanics seems justified, when it is borne in mind that Canada has fewer highly skilled building mechanics than Great Britain in proportion to her population, and that many of the tradesmen in this country are older men. According to the National Registration of 1940, about 37 per cent of all skilled construction workers are over 50 years of age, the proportion being considerably higher for some occupational groups, *e.g.*, bricklayers. Apprenticeship training was only on a small scale before the war, and little has been done since, so that the aging process of construction craftsmen is continuing. The remedying of this situation requires not only the upgrading and retraining of adults, but also the assurance after the war of a continuous stream of young workers who have undergone the requisite apprenticeship or allied training.[1]

Recruits for an immediate training program could be obtained from the following sources of labour supply: (*a*) a small number of young men who are below military age and at present working as construction apprentices; (*b*) construction apprentices in the armed forces who interrupted their training and working experience when they enlisted; (*c*) a number of men who have acquired certain skills while serving in the armed forces; (*d*) men who, having acquired certain skills while working in war factories, could be useful to the construction industry; (*e*) some of the semi-skilled or unskilled men at present working in the construction industry who are fit for upgrading. If these sources of labour supply do not suffice to provide the 40,000 men required to satisfy the short-term demands for construction labour, the remainder can be made up by permitting selected immigration of construction craftsmen from Europe. Immigrants from these occupational classes can hardly be expected from Great Britain, since that country has made clear that it will need its construction craftsmen at home. In addition to the immediate program, there is need for a long-term training program for construction craftsmen embracing at least ten years following the conclusion of the war. It has been estimated that in order to assure the ordinary replacement of ageing construction craftsmen, there will be an annual need for at least 6,000 young men to be taken in as apprentices.

Summarizing, it should be clear that the national and local dimensions of housing programs, the methods of financing them, recruitment and training programs for the men who are going to build the houses, and town planning provisions which are necessary to locate projects properly, must all be planned together. The need for careful study of the facts which have been instanced here is all the more necessary because housing must be a strategic element in full employment policy as well as a basic factor in the national standard of living in the post-war period.

[1] A detailed statement on recruitment and training problems in the construction industry was made by a special panel of the Subcommittee on Employment Opportunities and is included in the Subcommittee's report (tabled, House of Commons, January 28, 1944). The sources of supply referred to in the succeeding text are discussed in detail in the report, *The Construction Industry in Relation to Post-war Economic Policy*, previously cited (Report IV, pp. 64-67).

PART III.—REQUIREMENTS

Chapter

7. Town Planning.
8. Home Ownership and Related Programs.
9. Low-Rental Housing.
10. Farm Housing.
11. Reduction of Housing Costs.

CHAPTER 7

TOWN PLANNING

When Canada, at the time of Confederation, embarked upon its career as a Dominion within the British Commonwealth of Nations, the cities of Vancouver, Calgary, Edmonton, Regina, Saskatoon, Verdun, Sydney, Fort William, Moose Jaw, and many others were either idle prairie plains or virgin wilderness. Winnipeg was an outpost of the Hudson's Bay Company (Fort Garry), with a population of less than 200, and Moncton was a remote hamlet of some 500 souls. There were only three cities with a population of over 50,000; Montreal having 130,833, Quebec 59,699 and Toronto 59,000. Ottawa, after half a century of obscure existence as Bytown, a frontier lumber community, had a population of 20,000, and Halifax, with a head start dating back to its founding in 1749, had, by 1867, 118 years later, acquired a population of less than 30,000.

The seventy-six years that have elapsed since Confederation have witnessed a transformation in the Canadian scene. From a predominantly rural and colonist population of 3½ million, the population has grown until it now approximates 12 millions. A frontier economy, based on simple handicrafts and primary production, has become one of the front-ranking industrial nations of the world, based on vast resources of hydro-electric power. During the period, hundreds of new communities have emerged. Corner crossroads settlements have become thriving towns, towns have grown into cities, and cities have become sprawling metropolitan centres. To-day, there are more than four thousand organized municipal units throughout the country. Only a few of these are central metropolitan units, but these major cities are more and more dominant, registering the largest rates of growth and drawing industry and suburban populations within their focus. Coincident with this, some of the smaller towns, once more typical of the urban part of Canada, have declined or are relatively stationary. On the other hand, in the latest phase of development, some towns have mushroomed into pre-eminence only during the past three to four years, consequent upon the location of new defence industries within their borders or in adjoining territory.

In broad national perspective, some of the statistics which record this development are referred to elsewhere (Chapter 4). A striking though not common example of the accelerated urban growth taking place during recent years is the town of Leaside.

Seven years ago Leaside boasted a population of 600. To-day its population is in excess of 5,000. It is still growing. The homes of its citizens, unlike those of many purely "wartime" communities, have been built for permanence. Leaside, like many similar towns which have come into being during recent years, is here to stay, and to expand. So it has been with many other Canadian towns and villages across the length and breadth of the Dominion. From tiny settlements and frontier outposts, they have, in a brief span of years emerged to become important transportation, commercial and industrial centres. They have grown up very quickly. Some others which must not be forgotten in the broad picture of Canada—to take two at random, Carberry in Manitoba or Ingersoll in Ontario—may need new plans and enlightening influences if they are to flourish again. For all of them, the pre-Victorian mood and pattern in which much of our urban institutions were conceived, has turned out to be a transitory period in a revolutionary era, the end of which is not yet in sight. Since the days of Confederation, three-quarters of a century ago—one man's lifetime—the mode of life, the problems and the aims of the Canadian people, have undergone many significant changes.

This is the first fact to realize in any up-to-date understanding of housing and town planning needs in Canada. Apart altogether from the accelerations and dislocations directly due to the war, the Dominion faces the impact of movements which, once confined to the western world, have now become more or less universal. The industrial revolution paved the way for the growth of the modern city, and the commercial expansion which followed it has expanded urban development still further. Transport has undergone a series of revolutions, the automobile following the railway and the steamship, the aeroplane now bidding fair to overshadow all of them. Against the spectacular long-range effects of these innovations in opening up oceans and continents, it is apt to be forgotten how radical has been the effect of street-cars, subways, buses and automobiles on the configuration of cities in the last generation. Present-day technological revolutions, in new uses of electric power, chemicals, light metals, plastics, new types of construction, new potentialities of agricultural-industrial relations, are of at least equal and perhaps greater significance. Finally, in any broadly based concept of town and community planning, it is increasingly clear that modern concepts of democracy, of better standards of living, welfare and economic opportunity, must also be taken into account.

Urbanization is thus more than the mere growth of population. It is a part of modern life. And it is not enough to point to the difficulties and disadvantages which spreading city aggregates bring in their train and suggest that the remedy is simply to stop. It is no answer to the urgent case for planning and reconstructing our existing cities to say that Canada should have remained rural or that we should move "back to the land." Just as Canada could not have waged war as it has done without the unprecedented development of its industrial resources of the last four years so also it will be impossible to maintain a high national income and full employment in the future without a comparable development of peacetime industry. It is true that a much more efficient and happy distribution of population between city and country can be quite compatible with this new level of industrial production, and such a redistribution has to be found. But it is also true that a better organization of agriculture and other primary resources depends in large measure on a new approach to the planning of our cities. For urban planning affects not the merely physical units within the city boundary, but—economically as well as administratively—the transport, commercial, cultural and other facilities which emanate from them. Rural progress demands urban progress as one of its elements.

The danger is rather that the backlog of unplanned city growth, to which the strains of war have added critically in many regions, may be too great for rapid and effective remedy. Under the pressure of great population changes during the last half-century or more, the physical design, functional patterns, and governmental administration and fiscal systems of our cities and towns have undergone some modifications. But they have not been enough. Too often we have pursued policies of drift, piecemeal patching, or compromise and adaptation. The result is that to-day, many cities and towns are facing a critical situation, in terms of property deterioration, uneconomic expansion at the outskirts, and a tax-revenue *impasse*. Among the many problems confronting the cities and towns of Canada to-day and in the postwar period, none looms greater with more far-reaching implications than the planning and regulation of land and building development. The proper use and regulation of land, and the enforcement of minimum standards for community design and development have become matters of imperative necessity; and this applies to residential, commercial and industrial property, to public as well as private undertakings. Inaction will make reform progressively harder. The fact that many municipalities are financially better off than they have been for years does not remove the need for tax reforms and land-use planning. If this is put off indefinitely, our urban structure will be in serious danger.

The Effects of Lack of Comprehensive Town Planning

It may be thought that this is too dramatic a picture. A review of the characteristics of so many of our cities and towns—familiar to anyone who looks at the urban area as a whole and in detail, and does not confine his attention to a few favoured residential districts—will dispel this view. The evidences of congestion, deterioration, misuse and "blight" show up in a variety of ways, which are listed below. Almost all of them derive from the disorderly and unregulated use-pattern of the land. It is important to add that there are, continuously, two inter-related aspects to the picture. The one—physical, structural, and aesthetic—is easily appreciated; the other—economic and financial, including the structure of land taxation—is much less widely understood.

Land Use

1. Over-intensive land uses in small central areas where land values are high; under-use and deterioration, including vacant lots, in sections between the central zones and the outer rings.

2. Unreasonable concentration and congestion—of population, buildings, traffic at a number of points.

3. Deterioration in central business districts, directly revealed by deficiencies in private and public accommodations for the businesses and the traffic of these outmoded and unmodernized districts. Partly this is physical, due to failure in the original planning to foresee modern needs of space and land utilization. Partly it is economic, due to the obstacle to reconstruction, or even to maintenance presented by high tax incidence.

4. Indiscriminate intermingling of incompatible uses especially in the older and built-up districts. Buildings that have been converted from one use to another and that are unsuited to the new use. Undesirable land uses and building occupancy that persist in violation of local laws and regulations of the zoning, housing, sanitation and safety codes.

5. Haphazard fringe dispersion and unnecessary and excessive drainage of the population from the heart of the city, by premature subdividing and by developments on the outside, often supported by transport facilities, which are not systematically related to the rest of the urban area, and which create needs for other municipal services. Lower tax rates, and sometimes concessions in the fixed assessment of industrial property, attract industries outside the city without necessarily contributing to a really beneficial decentralization.

6. Lack of co-ordinated control, or coherence of plan in the suburban and outer residential areas. "Model" cities or villages which are purely residential must isolate themselves by arbitrary boundaries. "Estate" developments may have little or no long-term protection against encroachments of inferior properties, or provision for such industrial or commercial developments as would strengthen and stabilize their tax-revenue position. Elsewhere unregulated areas around the city margins can—and commonly do—become the sites for shacks and sub-standard structures because the land is cheap, unserved by municipal facilities, or otherwise neglected.

Facilities and Amenities

7. Inadequacy of public facilities (schools, libraries, hospitals, churches, playgrounds, etc.) in the central areas, because of overcrowded populations, converted buildings, shortage of space. In the outskirts, facilities may be overdeveloped in economic terms because residential density (and therefore revenue) is low, yet the population relatively widely dispersed. In general, inadequate educational, recreational and cultural facilities for the congested population, particularly those with low incomes.

8. Lack of public spaces for recreation and other socially desirable purposes; yet, on the other hand, an excess of unproductive privately-owned lots (or in some cases, large tax-free areas). Lack of public waterfront, lake or riverside parks, walks and bathing facilities.

9. Inadequate terminal facilities for various forms of public transport. Despoiled waterfronts, poorly located railway tracks, and lack of modernly equipped and strategically placed market centres.

10. Ugliness and unsightliness due to lack of control over design, symmetry of streets, display signs on stores, spaces for trees and landscaping, etc. Deterioration and obsolescence of various kinds; run-down houses or stores given over to inferior levels of operation; demolition lots used as unimproved parking spaces, etc.; billboards and electric signs, catchpenny sidewalk business, overhead wires of telephone and hydro poles.

11. Menaces to health—smoke, soot, dust, cinders, noise.

12. Overcrowding of many families in dwellings that were designed for fewer families; and in other dwellings that were never designed to meet minimum housing standards.

13. Slum housing of various types; also slum factories and stores.

Financial Aspects

14. Precarious financial status of developed property, due among other things to inability of owners to make reasonable returns on their investments, high rates of mortgage foreclosures, and tax delinquency in the affected areas. Buildings not kept in repair, or allowed to deteriorate below the point of financially justifiable repair under present circumstances.

15. Other evidences of disparity between tax rates and proper land use are: (*a*) overcrowding of the land by buildings with insufficient private and public open spaces for light, air and recreation; (*b*) continued demolition of buildings, with no constructive use made of the vacant lots thus created, and no new construction undertaken in the locality; (*c*) community and individual neglect of upkeep of neighbourhood; poor "municipal housekeeping".

16. Excessive construction costs, due to outmoded building codes or other legal requirements. In major areas requiring expropriations and reconversions of sites, these may mean that individual action cannot cope with the financial requirements.

Rural Aspects.

These problems are not confined to urban areas. It is not merely that rural lands are continually being encroached upon by city extensions: unplanned and uncontrolled land use has been at the root of many of our worst situations of agricultural failure, unwisely settled sections, abandoned lumbering and mining areas. Rural and regional planning will be needed in the future as the only basically remedial approach to problems of which we have many examples, extending from the immediate periphery of the city to the more remote districts:—

1. Undesirable ribbon development along the main exit-highways; billboards, unattractive and uncontrolled roadside stands, etc.

2. Unorganized relationship of highways and market centres for the farms within reasonable range of the city.

3. Lack of logical and systematic distinction between urban and rural classification of land for tax purposes.

4. Unnecessary scattering of the farm or rural population, without reference to such factors as community facilities, small industries, access to electric power, etc.

5. Excessive costs of public facilities and services—roads, schools, health and welfare—because of wide residential dispersion or population losses to the city.

6. Impoverished local government may co-exist with high incidence of tax delinquency, sickness and dependency; deterioration leads to the creation of rural slums.

7. At the worst extremes, isolated farms and settlements, small decadent communities or ghost towns, may be so far from developed urban areas that they can never hope for good markets. If the land is cut-over, exhausted or eroded, the inhabitants may eke out only a bare existence.

The need of programs for balanced development and conservation of all natural resources on a regional basis is made clear in the report of another subcommittee of the Committee on Reconstruction (the Subcommittee on Conservation and Development of Natural Resources); and the implications are referred to wherever they are relevant in the recommendations of the present report. It is only in the interests of a reasonable division of labour, and because the intensive aspects of city replanning need special description, that attention is devoted here mainly to the urban problem.

Urban Economics

To sum up the analysis of this, the growth of our urban areas has gone on with little or no attempt to control or adapt their physical layout to meet the rapid changes incident to modern industrial and social development. Problems of traffic congestion, of overcrowding of population, of slums and deteriorated areas, of parking spaces for motor vehicles, of space for recreation, and the like, have been countered only with piecemeal palliatives, or not at all.

The nature of "blighted areas", and the process by which they are created, is well described in a recent report of the U.S. National Resources Planning Board:—

> Around the core or cores of most American cities to-day, there is an area of declining housing and marginal business, an area losing population and value, an area obsolescing both as to location and function, called a blighted area...This blight develops in the trail of urban expansion. The small, healthy city will consist of a compact core of business and industrial uses, surrounded by residential land. As the city grows, the core expands, driving the residential uses before it. The zone of transition, inactive residential property waiting to become industrial or commercial, is blighted. As long as the expansion is slow and continuous, spreading evenly from the central core, the amount of blighted property is small, and the blight is temporary. But in the typical American city, blight has run wild and has poisoned from 30 to 50 per cent of the residential land. The reason is twofold: first, the migration into the country, the flight of population to the suburbs, has been going on at an increased rate as cars have become cheaper, roads better, and cheap land more accessible; and second the urban core has stopped expanding, areally, or has even begun to shrink, because of vertical expansion into multi-story buildings and lofts, because of the smaller space requirements of modern machinery, and because of the steady march of space-using industry to the urban periphery. Thus what was once a thin strip of blight, a zone of transition between business and residential use, has become a broad band, from which business shrinks away on one side and residence withdraws on the other. Further expansion of the city intensifies the blight. New business uses will either be piled on top of the downtown heap or skip over the middle ground to establish subcentres in the suburbs; new residential developments will naturally avoid the high prices and squalor of these "orphaned districts" and seek unused land and open country.[1]

[2] *Public Land Acquisition,* Part II: Urban Lands. (See p. 167 below).

It is of far-reaching importance that great and ever-widening areas around the centres and sub-centres of Canadian cities have become blighted in the same way. A variety of factors have contributed—overzoning of land for business uses, overintensive use of "sweating" of land for profit, changing fashions and modes of living, and the flight of the population to the suburbs. Most of the interior areas, because of their economic status, are unable to accomplish their own renovation and repair. Indeed, they are often unable to pay enough in taxes to cover more than a small part of the cost of the municipal services that must be furnished them. Meanwhile, the suburbs have grown more or less in all directions. The results here are that either the area for which services must be provided has been inordinately increased (since the area of a circle increases with the square of the distance out from the centre), or else the suburbs have become separate municipalities and the city has lost the tax-paying capacity of many of its citizens.

These problems are less apparent in the outlying areas; they are seemingly immune, though actually they are liable to similar difficulties if their density grows excessively or without adequate planning.[1] The situation in the central areas is more critical. Valuations for tax assessment of interior urban land have been pushed up and maintained at figures far beyond realistic expectations from a reasonable use of such land; and in the blighted areas tax-delinquency has become increasingly acute.

Many of the parcels of such land are owned by persons, firms, or institutions who have acquired them at high prices and in good faith, though others have changed hands with speculative intent. Mortgagees have made loans on many of them and now rely on market values which are clearly too high. Some are owned by family estates; some by mortgage lenders, as the result of foreclosures; and, in recent years, more and more have passed into the possession of cities because of tax forfeiture.

All of this is bound up with the revenue situation of the cities. Municipalities being dependent for their revenues mainly on real estate taxation, have raised assessments and rates, until they have become so high that new construction or reconstruction has been discouraged everywhere; and in the blighted areas, for this and the other reasons mentioned above it has virtually stopped altogether. Redevelopment is thus handicapped or prevented by the burden of land charges that acquisition costs would entail.[2]

But the cities and towns are compelled to maintain assessment and rates, thus increasing the tax burden on other properties, as more and more delinquencies occur in the blighted areas. To raise substantially more money through property taxes is now virtually impossible without drastic overhauling of the

[1] "The costs of municipal services are very directly affected by the efficiency or inefficiency of the urban pattern. Scattered surburban housing, for example, means longer routes for the collection of refuse and garbage, longer police beats, and more miles of streets and sewers and water mains per inhabitant. Allowing large apartments or industrial buildings to invade residential districts means installing more expensive streets, high pressure water mains for fire control, and larger sewers. Slums are usually fire hazards which not only increase the cost of fire protection but which also raise the insurance premiums of other property owners in the city. Wasteful neighbourhood layouts increase the amount of street paving to be maintained, reduce the amount of park and open space available, and multiply the number of street crossings to the disadvantage of both motorist and pedestrian. There is hardly a single manifestation of the inefficient urban pattern that does not add its mite to the cost of municipal servicing." (*Op. cit.*, p. 3).

[2] "Once an area has become blighted, it is under strong economic pressure to become a residential or industrial slum. Property owners allow their property to deteriorate. Feeling that it is only a matter of time before the business centre spreads to their property, they will not make repairs or renovations. They hold their property for fancy prices, based on future expectations which will never materialize. Taxes are allowed to go unpaid as long as it is safe to do so. Structures are rented at cutthroat prices to marginal enterpreneurs or underprivileged tenants. Vacant lots are filled with taxpaying junkyards, signboards, parking lots, or dumps. Blighted areas and slums are a net loss to the city; they necessitate high expenditures and produce low returns; they are an offence against the welfare of the people who live there; they are a nuisance to the owners of competing property; and they frequently turn out to be bad investments for the owners." (*Op. cit.*, p. 2.)

tax system, which most cities would hesitate to undertake, not merely because of the size of the task, but because it would uncover so much of the unsound and artificial structure of present land values. The war has not changed the basic situation greatly. The current financial situation of many Canadian municipalities has improved considerably since the war; but most of them are already heavily committed to debt charges incurred in the past, not all as the result of wise expenditure. It is questionable whether unaided they can or should raise through additional borrowing the great sums that would be required for adequate—which means large-scale—replanning and rebuilding. Yet it is clear that great areas of the cities must be replanned and largely rebuilt; else they will continue to drift into insolvency and financial difficulty. So much of the Canadian population now lives in cities that their status, if left unchanged, will block all possibility of really effective urban improvement and housing programs.

The Dilemma of Excess Land Valuation

The problem of congestion and blight, more especially in the larger cities, is traceable in large part to inflated land values. In this connection, it is well to remember that land, of itself, has no intrinsic value. The only reason it is said to have value is that people who own it are reluctant to give it up at any level below that contemplated, based on the assumption that the potential income-value of the land justifies the price asked. This assumption would have some validity if the true economic use value of land could always be predetermined. There is, however, a fixed limit to the usage of urban land offering a high economic return. The late Sir Raymond Unwin made some careful estimates of the length of time it would take a city to make use of all the potential land that was supposed ultimately to be part of that city, and his conclusion is striking:—

> The majority of the owners of vacant land within the city must wait one hundred years, and many of them two hundred years, before they will realize any value for the use of sites for building purposes. The majority of this land has no real value to-day and is unlikely to have any for generations to come....Meantime the owners on the strength of a gamble, with odds of 100 or 200 to 1 against their sites being selected, are holding up their land prices which compel high density usage, which in turn increases the odds against them....By reducing the density from 100 to 50 dwellings to the acre, the odds would be halved. By reducing it to 12, they would approach the kind of odds which gamblers are willing to face on the racecourse. To say that if present methods continue such land is really worthless, is indeed an understatement, for it is saddled with a considerable yearly liability for taxes.

This is the dilemma of excess valuation of inferior land. It can be resolved only through the instrumentality of the community as a whole. It is clear that no matter what the procedure or formula for so doing may be, such intervention will involve substantial sums of money. Where should the finances properly be found? It is obviously questionable, whether under present or prospective circumstances, the cities and towns could or should bear all the costs.

It is probably true that if the entire tax structure of the nation—federal, provincial and local—were thoroughly overhauled, the cities might be able to meet the situation. The great bulk of federal taxes, as well as provincial taxes, are derived from city areas; and if only they could somehow retain a larger share of such taxes, their fiscal position might become excellent. Such far-reaching measures of tax reform are indeed needed. If they could be accomplished reasonably soon, the cities might be in a position to finance their own replanning and rebuilding. If this should happen, well and good. But a realistic appraisal of the prospects forces the conclusion that such a consummation is likely to be as long delayed as will be the reduction of land valuations without public intervention. Consequently, another approach to a solution of this particular

financial problem is needed. When we look around for it, we are obliged to conclude that there is little or no hope of solving the problem solely through the provincial governments, even though some of these are in a more favourable position than the cities and towns. What may be feasible for some provinces is beyond the reach of others, and adjustment would be necessary, which would have to be on a national basis.

Once granted the proposition that clearing away the obstacles to sound replanning and redevelopment is the responsibility of the whole community, federal aid is justifiable. The situation has gone far beyond the proportion of a mere local problem: it is a matter affecting virtually all the urban communities, and it involves at least one-third, and perhaps as much as one-half, of the population of the country. The problem should be treated as one of Dominion-wide scope. Indeed, federal policies are not without some share in the responsibility for the conditions which now make replanning and redevelopment a formidable task.

Reconstruction Requirements

What are the elements of sound procedure in what is clearly a highly complicated task? Three approaches which have been emphasized as essential by two authoritative students of the subject in the United States, Dr. Guy Greer and Professor Alvin Hansen, are well worth reproducing here, for there is little doubt of their applicability to Canadian conditions:—

(a) *Long-range master plans.* For every town or city—or for every group of contiguous municipalities—a long-range master plan would be completed in broad outline for the entire metropolitan area. It would provide, of course, for its own subsequent revision to meet unforeseeable needs. It would be formally submitted to the appropriate federal agencies in connection with an application for financial aid, the financial aid being for the purpose of acquiring all the real property within a clearly-defined slum or blighted area. For each such area and the immediate surroundings, the planning not only would have to be complete and in accordance with the master plan, but should also be accompanied by the data necessary to justify all assumptions as to future changes. Definitely indicated would be the proposed use of every square foot of the area, whether for public purposes or for leasing to private enterprise; and such use would be determined without regard to acquisition cost of any particular section of the land. In other words, the acquisition would be a by-product of the job of clearing away the obstacles to redevelopment; in arriving at a decision as to subsequent use, the land should be deemed to have cost nothing.

(b) *Financial aid for land acquisition.* Upon approval by the appropriate federal agencies of all aspects of a proposal to acquire property, the government would be prepared to advance funds, if need be, up to the entire cost of acquisition. Possibly repayment of the principal might be required, along with a share of the subsequent net proceeds from the property, in lieu of interest. In view of the fiscal position of many municipalities, however, there are strong reasons for requiring them only to pay over, for fifty years or so, something like two-thirds of such sums as may be obtained from leasing the property, thus giving them a long breathing spell in which to undertake an overhauling of their tax structures. Of course, if they could accomplish tax reform at once, they might be able to finance the whole program out of their own resources, and thus escape even the minimum of federal supervision which would otherwise be unavoidable. Greer and Hansen insist that no centralized control over city planning is envisaged in their proposal. Every possible safeguard can be included in the federal legislation against interference with the local community in planning any sort of town it wants, so long as a few indispensable and basically desirable standards are adhered to.

(c) *Co-ordination of rebuilding and new building program.* Demolition and rebuilding in the acquired areas, or rehabilitation where this is feasible, would proceed as rapidly as all the attendant circumstances would permit. Meanwhile, public works activities—federal, provincial and local—would be fitted into the larger program and private undertakings would be proceeded with in conformity with the general plan. By such a process steady progress would be made, over the years, towards realization of the rebuilding and replanning of the area.

Some additional considerations may be added. It is indisputable, to begin with, that, to give effect to actual measures as well as to encourage the acceptance of general principles and objectives, appropriate provincial enabling legislation must be passed. Further, it is necessary to consider the need for financial and other assistance even for matters which concern local areas so specifically as the drawing up of master plans. It has already been urged, in recommendations made through the Committee on Reconstruction and elsewhere, that it should be mandatory for any municipality to have a master plan completed, or at least satisfactorily in progress, before it could be eligible for any federal financial assistance for public works or housing projects; a principle which this report fully endorses. This step is so strategically important, however, that it should quite properly be considered as the subject for financial aid on a national (Dominion Government) basis. Not only because of the importance of having works and employment-project programs prepared in advance of the end of the war, but also because most of these projects are likely to be intimately affected by the existence or absence of town planning, preliminary surveys of approved categories of such projects should be promoted and encouraged, through the medium of financial and technical aid from the senior governments. Urban and rural planning should be part of the preparation of all future works projects: the requirements are detailed further at the end of this chapter.

Because land acquisition is a major matter which may make or break any urban reconstruction project, it is imperative that workable principles should be formulated in advance. As is well known, comprehensive and detailed attention has been given to this subject in Britain by the Uthwatt Committee.[1]

Their recommendations have to do with (*a*) possible means of stabilizing the value of land required for development or redevelopment; and (*b*) powers needed to enable such land to be acquired by the public on an equitable basis. The recommendations of the Uthwatt Committee are of a far-reaching nature, and while they may not be applicable in their entirety or even in part, to Canadian conditions, they nevertheless warrant close study. They were put forward in an effort to break the impasse which otherwise confronts town planning measures in Great Britain. Urban and rural planning in Canada, no matter how well intentioned it may be, will meet with the same obstacles, unless adequate powers for the acquisition and zoning of land and the regulation of its use are vested in the municipal authorities.

There are also available for comparative study and adaptation to Canadian conditions, a series of measures having to do with land acquisition in the United States, sponsored by the Urban Land Institute and other private bodies in the United States, and on a comprehensive basis by the National Resources Planning Board.[2] These are particularly concerned with the problem of acquiring improved real estate in built-up areas for redevelopment purposes,

[1] Expert Committee on Compensation and Betterment. Interim Report (1941), and Final Report (1942). The more significant recommendations have been abstracted in Appendix J.

[2] *Public Land Acquisition Part I: Rural Lands* (June 1940). *Part II: Urban Lands* (Feb., 1941). National Resources Planning Board, Washington, D.C. Citations from Part II have been made at a number of points in this report. The report as a whole constitutes a complete manual, covering types of land-use controls, techniques of land acquisition and objectives and implications of large-scale policies.

whether private or public, or through some combination of both. In Britain, housing legislation has established principles of long standing, including equitable compensation and effective rights of public intervention, to facilitate slum clearance; and comparable principles will be needed for Canadian cities. (Cf. Chapter 2). But the wider requisite for general reconstruction in central urban areas must be given at least equal attention. In this connection, Danish legislation passed in 1935 has much to commend it. This empowers the public authorities to disregard the economic interests attached to the continued use of certain types of urban residential properties, and sets a "life limit" beyond which such buildings could not be used for housing purposes. Its purpose is to remove obsolescent and slum housing from the market. The result of the legislation has been that the owners of slum properties have sold their houses to the city at a much lower price than they otherwise would have demanded, had they not received a "time limit" beyond which the house could not be used for dwelling purposes. In South Australia, a similar measure to the Danish Act has had similar results. This Act applied permanent rent reductions to obsolete buildings and thus reduced the landlord's economic interest in their continued existence. Here, equally, the effect is that the owner is quite ready to sell his property at a reasonably low cost to the city.

The financing of land acquisition for urban redevelopment is clearly of critical importance. The Dominion government should give financial assistance, in the form of long-term loans at low interest rates, for large-scale assembly, acquisition and clearing of land, slums and blighted areas. These areas should be determined by the local master plan (described below), and eligibility for such loans should be determined by regulations formulated by the Dominion Town Planning Agency. If plans meet necessary requirements, money should be loaned to the municipality by the federal government for the acquisition of such land, but not for the construction of any buildings.

Long-term capital at low interest loaned to the municipality would enable the municipality to acquire the land in question and the loan would become a lien on the land designated for acquisition. (It is to be understood that some land may be in rural areas.) The loans may be liquidated by repayment of moneys received by the resale of the land to public or private agencies for redevelopment purposes prior to maturity of the loan. Urban redevelopment is of course the wider, and more fundamental, aspect of slum clearance. It is recommended in a later chapter that federal funds should be made available to municipalities for advance planning, including preparation of master plans, working drawings, specifications and financial planning for low-rent housing projects. The same form of limited but important grants for preparatory work must almost certainly be extended to sound schemes of major urban redevelopment if town planning is to make any substantial headway.

Legislative and Governmental Agencies Needed

It requires little consideration to see that urban planning and replanning will not be accomplished without forthright and cooperative action at all three levels of government. The problem concerns municipal, provincial, and federal governments, but cannot be left to any of them alone. The core of the problem rests in the present status of local taxation and land values; but this raises the whole question of adequate revenue-sources for municipalities in the future. The essential powers needed are those which will permit local governments to plan, control and determine land use and to acquire it in strategic areas; but these must derive from provincial enabling legislation, which in its turn should attain a reasonable degree of uniformity throughout the Dominion. There are also crucial considerations of coordination between adjacent municipalities, and between urban and rural planning, for which arrangements must be made.

Finally, the scale of the operations involved, and also the scarcity of properly-qualified advisory and technical personnel, render the whole subject a matter of national concern.[1]

It is true that some "town planning" legislation exists. Most of the provinces have passed statutes, and town planning powers of a kind have been available to local authorities for a number of years past. But they are, almost invariably, not drawn to the necessary dimensions for the task. Most of the provisions are of a general nature, and by and large they represent a form of negative control. In some cases, they do little or nothing creatively by themselves, though they prevent certain things from being done. Even within these limitations, however, town planning legislation in Canada has not been successful; and for the most part it is inoperative. Provincial legislation alone, even in changed form, will not be sufficient. A series of different functions, at all levels of government, must be established and brought into harmonious operation.

I. National Policy: the Dominion Government

The experience of recent years, the depression years as well as those of the war effort, and large-scale programs of national defence, have furnished proof, if any were needed, that economic conditions in the city are basically affected by economic conditions throughout the nation. Federal public works programs pressed into action to alleviate unemployment, and federal spending for industrial defence production, each in their different ways brought about material changes in the physical make-up of many cities. Future national policies with respect to transportation, immigration, tariffs and similar matters, will also have their effect on local conditions. The impact of large federal public works, such as harbour developments, flood control, conservation, airports and others, clearly has long-term implications for all the areas reached by these projects. Finally, as already emphasized, it is doubtful if urban reconstruction on the scale which alone will be effective and economical can be accomplished without a carefully organized plan of federal aid.

Hitherto one of the handicaps from which city planning, to the extent that we have had it, has suffered, has been the lack of integration and co-operation between local government and federal departments in the planning of federal public works.[2] There has been some development, notably through the medium of the Municipal Improvements Assistance Act, and some of the provisions of the National Housing Act, but little if any has been pursued to the point of systematic encouragement and direction, whether through the provinces as intermediaries or otherwise. There can be no truly national program in the post-war period unless the federal government takes a strong lead in providing some of the necessary facilities and in giving directives. It is not enough that federal funds should be spent, or federal public works implemented, only in those areas where satisfactory local or regional planning has been set up. There must be definite encouragement, by the best means which can be devised, to town planning activity all across the country.

To accomplish this, it is recommended that a specific federal government agency should be set up, equipped effectively (*a*) to formulate and promote

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[1] The need for inter-provincial clearance is clear in the case of town planning for such areas as the Ottawa-Hull district; but there are also some cities, of which Windsor is the best example, in which international co-operation is a necessary requisite of adequate town planning.

[2] It must not be forgotten that the federal government, through its ownership or construction of buildings and railways, harbour and watercourse installations, etc., has many direct responsibilities in local areas. Training bases, airports and other military establishments are special examples, and affect rural rather than urban areas, but other structures are located in the midst of built-up city districts. While the overriding pressure of war needs may be pleaded in some instances, the fact remains that Dominion properties may have strong influence for good or ill on the amenities, values and land-use pattern of the area in which they are situated. (On the recommendation of the Uthwatt Committee on defence installations in Britain, see Appendix J, *b*.)

desirable standards of urban and rural planning; (*b*) to encourage and assist the provinces in passing the necessary enabling legislation for municipal planning and regional planning; and (*c*) to establish a competent and imaginative research and information service, concerned with both the principles and the techniques of urban and rural physical planning. The agency, given an appropriate name (such as the Federal Town Planning Authority, or the Dominion Town Planning Bureau) would of course be a unit in one of the government departments, and thereby responsible to one of the Ministers of the Crown, and to Parliament. But it is imperative that it should not be subordinated, in legislative authority or practical working, to some other activity such as housing or public works construction. Consultative liaison with other agencies, particularly those concerned with public work construction, transportation, housing, etc., would be necessary; but a measure of independence is equally so, because of the very nature of the functions and influence which the agency must develop.

In general, its field of action would be the following:—

Education: Educational and publicity work should be directed to the stimulation of town and community planning in all appropriate areas. This work should concern itself with the economic and social advantages of properly planned areas, as well as the details and techniques. The value of town planning, like the value of good housing, is accepted in a very general fashion, but the reasons for implementing proper planning provisions need to be presented in convincing detail.

Information. The agency should undertake systematic collection of all appropriate information. Its action in this respect as a clearing house and disseminating centre would be of considerable importance. Much material is available in federal government departments at the present moment and from various private and public sources throughout the country, but there is no satisfactory coordination. The statistical resources of the Dominion Bureau of Statistics, the National Housing Administration and other agencies should be brought into effective utilization. Other valuable information would be a continuous review of experience in housing and town planning matters in other countries.

Research. The agency should be equipped to make studies of a number of relevant matters. Of particular importance among these would be (*a*) minimum planning standards (relating to lot and property utilization, etc.), and (*b*) model legislation for provincial and municipal guidance. Other matters which might well be made the subject of study in Canadian terms are the planning concepts most relevant to community patterns of various types; the proper treatment of areas scheduled as urban and rural on the outskirts of large cities; and trends of industrial development and decentralization.

Advisory Services. Within the Dominion government sphere, the agency should be available to advise the Housing agency as to whether local plans submitted for public housing, or publicly aided programs, comply with desirable planning standards. The other work in this field should be to extend assistance and advice to provincial and local governments on all matters relating to the implementation and development of desirable planning. A small but properly qualified field-staff would be of immense value in this work; without it, it would not be possible to make the most of the resources developed by the agency.

Specifically, its powers should include appropriately designated authority permitting it—

(*a*) to facilitate all co-operation required by local, provincial or regional planning commissions, in connection with federally-owned property and federally projected works;

(*b*) to co-ordinate any local or regional master plans which embrace contiguous inter-provincial or international areas;

(*c*) to undertake urban and rural research on community planning topics, act as an information service, publish bulletins, and generally act as the spearhead of town-planning education in Canada;

(*d*) to act as the approving agency passing upon long-term loans to provincial, regional or local governments for land acquisition necessary to the carrying out of urban reconstruction in accordance with master plans, in local, regional, provincial or inter-provincial areas;

(*e*) to approve special grants to local, regional or provincial planning commissions, for the purpose of making plans, carrying out surveys, and undertaking related preliminary planning projects, in local, regional, provincial or inter-provincial areas.

II. Provincial Governments

The role of the provinces in an effective national scheme of town planning is a vital one. This is not merely because the municipalities of Canada derive their charters and powers from provincial legislation; nor even because town planning involves co-ordinated action on the part of adjacent municipalities and other related areas. Two other major reasons are the necessity of extending community planning on a wide regional basis, and the importance of educational and promoted activity in this field.

Town planning, besides including intelligent anticipation of future development, is a process of co-ordination and integration, aiming at the achievement of harmony and organic unity among all the features of development which compose a neighbourhood, and among all neighbourhoods which make up the city.

This process, obviously, cannot stop at the city limits, which are usually arbitrary, and often illogical: the plans of the city must be integrated with those of adjoining or nearby cities, of the whole of the urban area or metropolitan district. But a city, and even more a town or a small municipality, is influenced by the resources and the degree of their development, in the whole of the surrounding region: certainly, provincial and national trends in the economy influence it. Thus the logical and necessary counterpart of urban planning, extended beyond the confines of the original or nuclear city, is planning for the best development of the resources of the whole geographical and economic region in which it is situated.

Resources planning on a regional basis is a different project in many ways, but a number of the elements, such as transportation, electric power, markets for farm products, are obviously linked and of primary importance. The whole of the vital question of industrial decentralization is here involved, and developments in this field must not be left to chance. So far as community facilities and public works are concerned, there should be means by which these can be considered in relation to one another, in due proportion to the population and its distribution throughout the province, so that rural as well as urban areas are properly served. The implication is that the county, or whatever other district unit (greater than that of the city or town) exists or is most appropriate, should have its planning agency or committee; the district committees or agencies then serving as the channels through which regional planning can be worked out and executed.[1] This procedure will ensure that full scope is left for the operation of local democracy—i.e., opportunity for the residents of communities

[1] In Eastern Canada the county is usually a suitable unit for action or co-ordination on a broad geographical basis; the township of Western Canada may or may not be. The term "district" is used in the present text to be interpreted in each province as the unit which is most appropriate. It should be understood also that a district may in some special cases be synonymous with a region, though usually this will be so large as to only be covered by a combination of districts. Though regions are not specifically defined here, most provinces recognize a regional division of their territory on geographical or economic grounds; these divisions should be carefully revised for their appropriateness to urban-rural planning.

The need for regional committees for urban-rural planning purposes does not imply that region is set up as a new unit of general government. They would be *ad hoc*, though continuous bodies, built up from local and provincial sources. In some cases it would be desirable, and even imperative, that they overlap provincial boundaries.

and areas, through their elected representatives or public officials, to take part in voicing and determining their own requirements—at the same time as it provides the medium for co-ordination of policies and plans on a regional and provincial basis. Safeguards ensuring reasonable protection to existing uses should be part of the procedure.

It may be quite reasonable for some districts to delegate their urban and rural planning obligations to either a regional or the provincial planning authority, and it should be within their option to do so. Since technical personnel is scarce in any case, while the smaller municipalities and many rural areas have no resources for salaried staff, the preparation of plans, etc., their participation may best be facilitated through the loan of advisors operating from the provincial headquarters possibly on a circuit basis for all the districts in a region. In the "unorganized" districts of some provinces, such as parts of northern Ontario, this would be necessary for other reasons, i.e., because of the scattered population and lack of municipal units, and in appropriate cases the provincial government itself might act, or create a special unit for the purpose. Subject to these modifications, provincial enabling legislation should make it mandatory for all municipalities, not already comprised within the jurisdiction of a district council, to do their own planning, or else delegate it to either the district planning board or the province. Before adopting a master plan, district or regional planning boards should be required to have their master plans approved by the local councils within the district or region insofar as they affect their area.

Planning Bodies. Two kinds of legislation are required. The first relates to the planning machinery itself. Within each province, a Town Planning Board[1] should be set up on somewhat the same basis as the federal agency described above. Its sphere of action, however, would be more specific, and should include:—

1. Study of all matters relating to the physical, economic, industrial and social developments and resources of the urban regions of the province.
2. The drawing up of a comprehensive master plan, to regulate the development and to secure economic use of urban land throughout the province.
3. The implementation of the legislation passed by the provincial government to set up local and regional planning boards, by directing or assisting their activities, and arranging for the co-ordination of their plans.
4. Certain special powers sanctioning the preceding function, including (*a*) the certification as to whether plans for regional development, or units thereof, conform to the provincial plan, and (*b*) designation of areas and regions to be planned jointly.
5. Advisory services and co-operative liaison work within the framework of the provincial government, including the administrative departments of the provincial government concerned with or affected by urban planning; especially in the preparation of long-term development programs and the budget program necessary to carry them out. It should also carry out studies on relevant topics which may be requested by the Legislative Assembly.
6. Serving as the principal co-operative agency for co-operative action with the Dominion town planning agency, and with the planning boards in other provinces.

The master plan on a provincial base would, of course, have a broader sweep than the plan for a particular city area. Its zone maps and regulations, however, should extend to considerable detail:—

i. Prevention of subdivision or urbanization of areas where such subdivision or urbanization is deemed premature, or which it is desirable, in the public interest, to retain permanently for recreation, forestry, watershed protection, farming or other open development.

[1] Or possibly an Urban and Rural Planning Office, made up of two divisions, with some interlocking personnel, the membership of the rural division in particular providing for liaison with the appropriate Departments (Agriculture, Lands and Resources, etc.)

ii. Prevention of scattered residential or industrial development which will create excessive burdens for school, roads, and other community services.
iii. Regulation of roadside developments along main highways.[1]
iv. Provision of locations for a proper distribution of air traffic facilities.
v. Protection against the destruction of natural beauty spots.

Certain elements essential to efficiency and success would have to be worked out and implemented in co-operation with the Departments of government concerned with agricultural and natural resources:—

i. The prevention of large tracts of sub-marginal lands being settled for the purposes of general farming; or of scattered tracts in larger areas that can best be utilized as a whole for recreation, park development, forestry, etc.
ii. Regulations to control the cultivation of soils subject to excessive erosion, or to zone such areas for pasture or forestry.
iii. Formulation of a code of conditions to govern building and other constructional development in rural areas, consistently with the maintenance of agriculture and its economic operation throughout the province.
iv. The preservation of rural amenities and developments necessary for the well-being of the rural communities.

Local Applications. To carry this work of the provincial agency through to the local areas involves a new and more positive approach to town planning enabling legislation. In particular, this should include its revision to incorporate the following requirements:—

1. Urban planning must be made mandatory (instead of permissive) for all municipalities which are separate government units, *i.e.*, not included within the jurisdiction of counties or other "district" bodies. District and regional planning by the appropriate larger units of government must also be mandatory; it being open to a smaller unit of local government to delegate its planning responsibilities to a larger one.

2. City and municipal master plans should be placed on a statutory basis, with detailed procedures for their adaptation and modifications. Certain differences of elaboration might be set out for units of different size, but the general principles of organization should be uniform.

3. The technical planning organization for all municipalities (and larger district or regional units, where these exist) must be made part of the normal structure of these governments, not merely an *ad hoc* or auxiliary body. It should take the form of a planning department within the permanent administration of the city or town, so that consultation and integration of its work with that of all the other relevant functions of the local government would be facilitated.

4. A Planning Board should be appointed in each municipality of sufficient size, to supervise and approve the initial city plan. This important body should be composed of persons qualified in relevant aspects of the planning process and representative of all relevant groups in the community. Provision may be made for inclusion of an ex officio member from the city council, but the principal purpose of the Board is to be a lay body, appointed in an advisory capacity. Reports on the development of the master plan for the city (or area) should go in the first instance from the Planning Department to the Planning Board. The decisions of the Planning Board would be reported to the city council (or other district governing body). They would not become law until adopted by the council.

[1] Legislation is also needed to ensure that cross-town streets which join or are extensions of provincial highways are deemed provincial highways for regional planning purposes.

5. Provision should also be made for acquainting the public with the nature of the plan and its supporting regulations (further mentioned below). After the adoption of the plan, all subsequent land acquisition, construction, building modifications and development would be obliged to conform to it.

Supporting Policies. The second type of legislation which will be necessary extends to various fields which must be actuated by the principles of urban planning in the future.

1. If it is not already provided for (in the town planning legislation of the province, or otherwise), the principle of zoning, to control all land use, should be extended to all parts of the provincial territory.

2. In all the regions adjacent to cities, there should be created, "urban-area development zones", and "agricultural (or rural) development zones". In mixed areas, standard classification should be extended until all land is properly classified, for taxation and land use purposes, as either urban or rural. Finally, legislation is needed to apportion the cost of municipal services between urban and rural lands on a basis of land use needs.

3. In addition to the prevention of premature urban development in agricultural zones, already referred to, legislation is needed to prohibit the sale of land by "metes and bounds"; and also to make the subdivider responsible for the cost of installing streets and local improvements in new subdivisions.

4. Most important of all, a redistribution of the responsibility and cost for certain services (education, social welfare, etc.) with all the reforms of the municipal tax structure involved, is a pressing need, and should be worked out.

Facilitating legislation is required to put as many municipal services as possible on a self-supporting utility basis. For example, water supply and sewage disposal ought to be combined into a single, self-supporting public utility, paid for on the basis of water consumed; and the rates could then be systematically zoned. Eventually, as has been emphasized, it is impossible to complete the process of urban reconstruction without fundamental reconsideration of the sources of municipal revenues themselves. But this is an area of tax administration in which municipalities can help the process forward by putting their own house in order.

III. Local Government

Clearly the local municipality is the unit whose energy and efficiency will determine whether or not practical results will be obtained in the cities and towns of Canada most directly concerned. The powers which these governments must acquire and use—in most cases, in co-operation—are essentially threefold. They should permit the municipalities:

1. To determine (in agreement with the governments affected) the area to be planned. Along with this must go the definition of "public purpose", to include any purpose deemed to be essential for the realization of the master plan.

2. To create the necessary planning machinery (Planning Department, and Planning Board or Commission) and provide for the making of a master plan for the defined urban and/or rural area; and to vest the planning agencies with the authority necessary to formulate the master plan and keep it up-to-date.

3. To enact and enforce ordinances requiring the owners of real property within the defined area to use it, or to permit its use, only in accordance with the master plan; and to acquire, by simple measures, and where necessary by condemnation, land anywhere within the defined area, for a public purpose as above defined; to hold, use, lease, sell or exchange such land; and in any case to make certain that it shall be used only in accordance with the master plan.

The agencies through which the formulation of the basic plans may be achieved—Planning Departments as part of the city staff, and Planning Boards or Commissions as advisory bodies—have already been indicated in the specifications for provincial legislation. The size of the Boards might reasonably vary. In municipalities having a population of less than 25,000 persons, for example, the membership might consist of three appointed members, together with one member from the local council; in municipalities having a population of 25,000 to 100,000, five appointed members, together with one member from the local council, would probably be adequate. Too numerous a body, even for a large city, could easily become unwieldly, and this should be guarded against. It must be remembered that, apart altogether from the necessity of submitting the plan to the city council (or other local government body) consultation and participation of the residents of the community would be safeguarded through public meetings, exhibition of the maps and details of the plan, and other methods. There is no justification for the existence of the Planning Board, whether small or large, unless it is competently informed in the purposes and problems of the town plan.

The principal responsibiilty for the detailed techniques of the master plan and its components will necessarily rest with the director of the Planning Department. He should *ipso facto* be the liaison member of the Planning Board. The chairman of the Board should probably be paid, as he would be expected to devote a considerable part of his time to the work, at least in the formative stages of the plan; with decision as to the desirability of honoraria for other members left to the city government. It is suggested that the term of office of appointive members of municipal planning boards be for a period of five years, with the initial term of office staggered. It would be necessary to specify that no members of a planning board may hold any other official position connected with administration or government of the area to be planned, except that (as in the case of the ex officio members of the city council) he may be an elected member of the governing body, or a member of another planning board.

The Master Plan. While it is convenient to use the term "plan", it should be evident that a series of detailed plans are in fact required, both in the preparatory stages, and in the regulations as to future land use which must eventually be established.[1] There must, however, be one co-ordinated framework to which all details of location and land use are fitted. The elements composing this basic city plan include the following:—

1. *Neighbourhood unit plan.* Indicates proposed organization of metropolitan area on an orderly, integrated and neighbourhood unit basis.

2. *Public services plan.* Indicates proposed markets, community buildings, (schools, libraries, hospitals, fire and police stations, public baths, etc), public facilities, such as bathing beaches, public gardens, sports centres and other provisions which may be owned or operated in the future.

3. *Major street and traffic plan.* This indicates the location, width, grade and construction of major streets and traffic terminals.

4. *Public transportaiton.* This deals with existing and proposed lines, terminals and facilities of public transportation services. (Railroad, bus, street railway, water and air terminals).

5. *Public utilities.* Indicates existing and proposed facilities; plants and services of public utility companies.

6. *Metropolitan parks.* Indicates present and proposed sites for public parks, forest lands, water site, and pleasure driveways, etc.

[1] It is generally agreed that for the comprehensive master planning of a large city three years should be allowed; and such experience as is available from United States cities suggests that for good administrative organization a minimum budget of 4-5 cents per capita is necessary.

7. *Zoning or allocation plan.* Designates the zones and areas of which the land usage should be reserved for industry, commerce, housing, low rent housing, and any other special category of construction, or for any other purpose.

8. *Building and construction codes.* This concerns the establishment of minimum construction requirements and property standards, for all construction within the metropolitan area, in accordance with acceptable present-day standards in building, plumbing, electrical, and other construction practice.

9. *Land use plan.* The purpose of this is threefold:

(*a*) To establish use regulations for land and buildings, to control the height, bulk and spacing of buildings, set-back, etc.

(*b*) To establish a plan of public land use, indicating existing and proposed uses of land for other purposes than those described in section 6 above, (i.e., cemeteries, botanical gardens, zoos, historical sites and monuments, etc.).

(*c*) To establish standards of population density. These are particularly important for future control projections, systemization of utility rates, and other purposes.

10. *General amenities.* This should provide scope for study and recommendation on such matters as (*a*) public health facilities to be conserved, modified or constructed, (*b*) refuse disposal and incineration, (*c*) hygienic requirements of buildings and factories, (*d*) control of display advertising and bill posters, and (*e*) control of ribbon roadside development, (*f*) land-use of vacant lots.

11. *Land acquisition plan.* This should distinguish (a) land to be acquired for resale or lease, for redevelopment to private uses; (*b*) land to be acquired as a reserve for anticipated public use; and (*c*) land to be acquired as a reserve against premature urban development, for ultimate disposal to either public or private use.

N.B. Since a number of these matters are under the jurisdiction of city and municipal councils as such, the form of legislation (setting up the Planning Departments and Boards) would specify them as subjects on which the Board was authorized to make studies and recommendations only. Implementation of these recommendations, as of the structure of the master plan itself, would be subject to council vote.

The Relation of Capital Projects to Town Planning

The systematic long-term budgeting of all constructional and service facilities, or "programming", is the last, but by no means the least, of the technical phases of community planning. It consists of scheduling proposed public work projects over a period of say 5 - 10 years, in the order of their importance to the community and in relationship to its financial resources. The program should include both capital improvements and public services, and indeed all items of public expenditure. In addition to work definitely scheduled, a reserve of needed projects for which no funds are expected during the programming period should be built up. The first year's program is simply the capital and ordinary budget for that year, but the long-range program should be revised annually, adding another year's work at the end of the period to replace the one just completed. Proper programming guarantees periodic review of proposed community expenditures and revenues, so that few ill-conceived projects will be undertaken and few communities will outrun their resources. It also provides a constant reserve of useful public work ready to meet any emergency in the field of employment. Whenever outside funds are made available, several years' work can be telescoped into one, and some projects previously relegated to the "reserve" can be transferred to the "program".

Determination of priority ratings is a major aspect of planning. The community itself should probably rank projects according to their direct contribution to community welfare, leaving it to the federal government to analyse their effects upon demand for labour, materials, and equipment, and upon income and employment generally. Financial planning, however, is an essential part of local capital programs and must be carried out by the governmental unit that will be responsible for the ultimate disposition of funds. Without adequate financial planning, no community can make well-founded decisions as to what new or expanded improvements and services it should undertake.

Financial planning requires a careful survey of the community's past, present, and probably future position with regard to tax revenue and borrowing capacity, which may require three steps. (*a*) The first step is to gather enough historical data to permit an informed forecast. Such data should include not only figures on tax revenues, tax delinquency, debt and debt services, ordinary and capital expenditures, and so forth, but also material on population trends, employment and unemployment, retail sales and other business indices, assessment methods and values; and finally the legal framework, geographic and economic conditions of the region generally, which bear on the community's financial future.

(*b*) The second step is to estimate current revenues over the program period on the basis of these data and proposed tax rates. Anticipated revenues can then be compared to necessary ordinary expenditures, including debt service, maintenance, operation and repair of existing capital facilities, and other irreducible current outlays. The excess of expected revenues over necessary outlays is the amount available for the undertaking of new or expanded capital improvements and public services. In general, the excess can be regarded as the amount available for financing additional debt, but some communities where population and revenues are shrinking may have to plan debt reduction. It is highly important, however, that freedom from debt should not be accepted as a financial end in itself. A pay-as-you-go policy may needlessly deprive growing communities of badly required facilities, and may nullify efforts of the federal government to maintain a high level of income and employment by fiscal measures.

(*c*) The third step is the listing of desired projects. A standard form should be used, and both original and continuing cost carefully estimated. After listed projects have been studied, a selection can be made and scheduled over the program period, to absorb the funds expected to be available during that period.

Even this brief outline of the capital-budgeting technique should serve to show that efficient programming requires a certain amount of special skill. Such skill may not be immediately available in all communities. It will be necessary for some federal agency to provide guidance in the form of manuals of instruction and temporary loans of personnel, after the manner adopted by the National Resources Planning Board and the Public Work Reserve in the United States. On the other hand the experience of these agencies has shown that a limited amount of educational work enables even the smallest communities to proceed with their own programming with only intermittent assistance.

Needs Beyond Legislation: Public Education on Town Planning

No subject is more widely discussed than that of town planning, yet no subject stands more in need of careful definition. The preceding paragraphs have made clear what town planning means in terms of actual legislative and administrative requirements. It should be clear from these that the concrete tasks of town planning go far beyond the limited ordinances and regulations which are at present in most cities the sole evidence of town planning authority.

It cannot be overemphasized that the measures which have been outlined above will not be implemented without parallel movements of education and co-operation among all the members of the communities concerned.

Definition. It is desirable therefore to specify carefully in general terms what town planning means.

(*a*) The planned organization and reorganization of all the physical factors of the urban area—land, buildings, streets, recreational areas, transport and transit facilities and the like. In more precise detail the elements in a total plan which must be subjected to survey, redesign and control have been enumerated above. The administration of these plans is then directed to the orderly, balanced and far-sighted arrangement of land uses, streets, buildings, recreational facilities and the rest, to form a physical environment which will best promote the economic and social welfare of the residents of the community. Actually, since we have taken so little comprehensive and forthright action in the past, our efforts for some time must be devoted to eliminating the wastes, inefficiencies and obstacles which are products of past mistakes, before a new start upon the city pattern can be freely made.

(*b*) The recognition of the urban community as a special form of economic and social association of human beings, engaged in a variety of relationships with one another; in making a living, rearing families, participating in recreational, cultural, political and many other group activities. Town planning in this sense is equally concerned with the physical prerequisites, but views them as means to an end. The task of town planning, in other words, is to facilitate the carrying on of the social and economic activities of the modern community with maximum efficiency and convenience, and to improve the quality of the conditions on which community welfare depends.

The difference between the two concepts may be epitomized by saying that the emphasis of the first concept is on *rational physical organization*, the emphasis of the second on *better community living*. If the second purpose is to be accomplished, the techniques employed must proceed beyond the applied science of surveys, building processes, traffic diagrams and the rest: they must extend to the relation of design, environment and facilities to health and welfare in work, living, travel, recreation and cultural development.

Clearly these two concepts of town planning have close interrelations. The first will not be sufficient unless it is inspired and illuminated by the vision of the other. Better community life will not be realized on the other hand, without the hard and practical achievement of rectifying the present disorder of land use and land valuations. Nothing is gained by confusing them. But the immediate task of physical replanning alone is not yet fully understood.

Perhaps the point that is least understood is that physical planning is not merely a matter of lay-out, structures, growth patterns, and the rest, or even of art and architecture. Town planning includes the analysis of appropriate sizes of areas and of the most economic densities for population, buildings, industry and services.[1] The tax structure is obviously dependent on this; and because of this, town planning might quite properly be called the technique of municipal diagnosis.

The city may be looked at merely as a productive unit, as in these words of the report quoted elsewhere, "think of a city as a productive unit in the national economy: an assembly plant bringing together railroads and steamships, factories and workers, warehouses and retail outlets, bankers and consumers, for the purpose of slaughtering hogs, or transhipping wheat, or manufacturing auto-

[1] Studies are needed to throw light on "the maximum efficient size of a city, the point at which the economies of concentration are outweighed by the diseconomies of congestion, the point at which the social and economic organisms should divide to form a second urban unit". (*Public Land Acquisition, Part II, op cit.*)

mobiles, or selling clothing. A competent industrial architect or economic planner would lay out this plant so as to promote the free flow of goods in process, to eliminate cross-hauling, to provide cheap and adequate land for housing, industry, commerce, and business, to minimize maintenance, repair, and servicing costs; in short, to arrange the components of the urban economy in their most rational relationships". But of course the same case for effective design applies to the social aspects of a city as well.

Co-ordination. In whatever way the objectives are phrased, it is a basic principle of town planning that it is a process of synthesis. Before a plan can usefully be made of a city or town or region, all the aspects of its physical structure must be known. This involves comprehensive study of its pattern and environmental conditions; the trends which have produced changes in these conditions; the mistakes and successes in past developments; the immediately practical possibilities, and the long-run opportunities of securing improvement. Naturally the study of past examples of planning, for guidance in design and policy, and of local customs and prevailing laws, is necessary and helpful.

So far as the community facilities pattern is concerned, the comprehensive approach opens the path to enlightenment and efficiency. This is true of all the criteria of good town planning, which include amenity, convenience, health, safety, and welfare. *Amenity* becomes a criterion because of the obvious advantages of skilfully planned buildings arranged with sufficient space about them to suit their purposes and location, and to preserve all possible beauty of natural features. *Convenience* is a criterion, particularly applying to movement and locomotion, because transit and traffic—by road, rail, water and air—is a critical factor in the economic functioning of the modern city. Criteria of *health* mean that principles and not merely fortuitious experience govern the securance of spaciousness, so that the inhabitants of buildings enjoy light and air in their dwellings and places of work, and have open areas for recreation. It provides a rational basis for the areas system of water supply, drainage, sewage disposal, etc., though this often is an outstanding example of public works which may merely have grown with the city and are least amenable to economic design. *Safety* as a criterion has perhaps most clearly been written into local by-laws, though in most cases they would benefit from codification and overhaul. The requirements are that streets and buildings should be so constructed and their uses so distributed, including means of access and freedom from traffic congestion, that the danger of fire and street accidents can be radically reduced.

Finally, certain more general welfare considerations can only be secured as a net product of the rest. The modern community needs a reasonable degree of economic and social stability, a requirement which involves questions of size, industrial and residential composition, and its relation to the resources and economic policy of the nation at large. It must provide a measurable degree of individual and group freedom. The latter depends not only on such things as schools and recreational facilities, but on opportunities for participation in the democratic life of the community. It is one of the visions of community planning that it should increase such opportunities in both the urban and the rural environment.

Projection of the Plans. With co-ordination must go foresight. It is necessary not only to plan for the community as a whole, but for the future as well as the present. Urban and rural planning is concerned largely with the problems of change and growth. It must anticipate and provide for these changes. The master plan is for the purpose not only of relating all the parts of the city or region to the whole, but of giving a framework for orderly growth and opportunities which will facilitate expansion. The full results of the plan itself may not be discernible until long after a plan has been made. Many

external influences may operate to change a city or town or rural region, and give it a new direction before a particular proposal can be carried out. Planning, therefore, can never be a static device. Rather, it must be administered as a continuous process, forever adapting itself to the shifts and changes which characterize the dynamic nature of human society.

Co-operation and Education. If town planning is to be successful, it demands a high degree of co-operation between leaders in public affairs, owners of property, the general body of citizens, and those who practise the profession of planning. There must be an agreement as to the meaning and purpose of urban and rural planning, the practical machinery necessary, and an understanding of what public planning policy involves, including methods of control of land and regulation of land usage.

The difference between an integrated plan, informed by consideration of broad community objectives, and partial and unrelated plans, is fundamental. Individual site planning, single buildings which are well-designed and modern, one or two beautiful boulevards, are no substitute for a master plan and a comprehensive regional policy. The chief defects in the functional and physical design of most of our existing communities are occasioned because there has been only piecemeal planning, mainly by real estate developers in their private interests, and for the most part without consideration of the community as a whole. The result is a hodge-podge of unrelated plans based largely on existing streets and subdivisions of land, if anything, reducing the chances of co-ordination because of the strait-jacket framework of an outmoded land pattern and street design.

The task of reorganization is challenging enough. Existing structures and uses are widely different in their functions, such as residences, business and industrial buildings, streets, parks, playgrounds, schools, libraries, fire stations, passenger and freight terminals and others. They have been built through the more or less independent actions of a very large number of private individuals and groups, and the numerous agencies of the city, county, provincial and federal governments. Since they are part of a community, however, their purposes and the uses made of them are interdependent—either for good or for ill. Unless principles of design, co-ordination and adjustment are applied in determining their location and extent in relation to one another, and unless all these accord with some general plan or design of the desirable overall developments of the community, maladjustmnets and deficiencies are practically inevitable.

In matters of civic improvement, what people will accept and support is what they can understand; and education is essential to give this understanding. All too frequently, where planning authorities have been set up in Canada, they have had to struggle against public inertia, lack of consideration for the future welfare of neighbourhood or community on the part of particular interests, and even against the obstruction or indifference of uninformed officials who do not recognize the profound influence that community planning (or the lack of it) may have on the future of the area.[1]

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[1] "Most cities have grown haphazardly, in response to uncontrolled forces. Even planned cities, like Washington and Indianapolis, have not been treated as functioning economic units, but rather have been forced into arbitrary geometric straitjackets devised before their planners could have envisaged the twentieth century economy. . . . Urban growth and expansion have been regarded as inevitable, not subject to human control, and so have been suffered to spread in all directions, periodically thrusting aside the feeble restraints of zoning laws, sanitary codes, and land-use regulations. The urban assembly plant has not grown methodically in accordance with a plan laid down by a competent architect; it has sprawled over the landscape in response to demands of a dozen autonomous foremen, each intent on outstripping the others in volume of production and number of employees." (*Public Land Acquisition, Part II, op. cit.*)

Town Planning Personnel.

One of the most serious practical considerations for the future of town planning is the dire shortage of adequately trained and experienced persons. This is due to the lack of training courses, and of governmental positions in which town planning in the comprehensive sense has been practised. There has been no inducement to universities or other training institutions to set up more rounded courses, nor to individuals with a taste for the subject to equip themselves professionally or to seek to practise.

There are, of course, a number of county and municipal engineers who have had university courses in civil engineering, or have qualified through the examinations of bodies like the Society of Land Surveyors. The architectural profession has been intermittently interested, and at one time there was a Town Planning Institute in Canada, but this disappeared in 1931. Some of the universities give courses in municipal administration and other topics which should be brought into relation to the physical techniques of town planning in a co-ordinated course; but until only recently there has been no such development. It is a sign of the new interest that this year (1943), a special extension course on housing and community planning has been organized for the first time at McGill University, while the School of Architecture at the University of Toronto has undertaken a detailed course to provide technical training with some field work for town planners and technical assistants in the subject. But these efforts, valuable as they are, are still little more than experiments judged by the vast scope of the work which needs to be done.

Many municipalities have divisions called Town Planning Departments, but most of these do very little more than a restricted administration of zoning and by-law enforcement. Only a very small fraction of city appropriations which are accredited to town planning are really devoted to this purpose; the rest relates to routine matters of land subdivision, registration of new building areas, layout of sewers and municipal services, street widening and similar details. There is hardly any opportunity for municipal or county engineers to exercise the principles of positive town planning even if they desire to do so. In many municipal circles, town planning is still thought of as a zoning process or as perhaps an extension of city surveying. No doubt many practical engineers and administrators who might be admirable material for town planning courses have had no encouragement to develop their interests, but might be recruited if facilities were organized. It would be desirable of course, to consult as soon as possible the officials of the few Canadian cities which have made any developments at all of the wider concept of town planning, including the drawing up of master plans.

But the situation cannot be changed to the extent that is necessary without financial assistance which will help to promote and co-ordinate courses in town planning and housing in universities and other appropriate institutions throughout the country. We cannot expect to borrow talent from other countries except for short terms in an advisory or teaching capacity. The demand for town planning experts will obviously be acute in Great Britain; and in the United States statements have been made on several occasions in recent years indicating there is a shortage there, although organization to meet it is being considerably stimulated. In any case, it will be necessary to build up an intimate relationship between the training institution and the city, provincial or Dominion government for "in service" training. It is necessary also that there be full recognition of the fact that town planning is a continuous process, calling for professional careers and a substantial number of appropriately trained technical assistants.

It is, therefore, recommended that consideration should be given to a special Dominion government grant, possibly on a matched basis with provincial grants, for the encouragement of courses both in the techniques of town planning, and

in the co-ordinated social and economic subjects which are required to provide the proper background for such training. The fund should be available for assistance not only to universities but to other institutions able to accommodate appropriate students. It is recommended also that the Town Planning Agency recommended above, as one of is first functions, should take the necessary steps to draw up a model curriculum for the training of town planning personnel. Such a standard would be necessary to aid in the administration of the grants, but it would be of value also as an immediate step in recognizing the qualifications of town planning specialists and staffs.

This is not too ambitious an objective. For everyone is interested in town planning—in a better living environment, and in methods by which it can be improved. And, it is important to add, the public can take part fully in deciding the kind of community they want. There is no fixed rule of development, beyond the topography and the industrial resources of the area. Indeed, the citizens of an area should be encouraged to consider alternatives and voice their preferences. Do they want large complex metropolises or simple more self-sufficient communities; lots of open space, trees and landscaping or the synthetic amenities of modern buildings; restricted travel and traffic or rushing trains and great overhead speedways? And many other questions. Above all, do they want a more even and balanced system of land values and real estate taxation, or concentration of attention on central business areas and outer garden suburbs?

Given an environment of democratic interest in town planning, the enforcement of the necessary legislation will be a much simplified task. Some of the more important land policies handicapping urban and rural planning have been the restrictions placed on their power to regulate uses to which private property may be put; limitation of the freedom of urban and rural administrative units to purchase and hold land; difficulty in obtaining the public's share from community-created values in land. Equally damaging to successful urban and rural planning is the commonly held view that land is an ordinary commodity for unrestricted purchase and sale, the failure to recognize that its marketing and use are vested with a public interest of paramount concern to the community. These things will be changed only through positive and negative education—demonstration of the benefits to be derived from a planned community pattern, and of the ill effects and losses from its absence now and in the past. And only thus will our urban and rural communities guard against the propensity to condone and explain away existing blight and disorder. Jerry-built housing, narrow city lots, speculative buying of land or withholding of it from use, the location of factories, railways, coal dumps, chemical plants too near to residential areas, inadequate provision of open spaces or traffic arteries, drabness and unsightliness of all kinds, will not be tolerated for it will be understood that they are remediable with far-reaching benefits, and for the future, preventable. There is no difficulty about the enforcement of regulations whose purposes are understood and objectives desired. It will take time to achieve, just as the actual work of rebuilding will support a construction program for many years. But no time will be more favourable than the years immediately after the war, provided some anticipation of both requirements and benefits is placed before the public now, to give reality to one of the most widely discussed of postwar objectives—better cities and towns in which to live.

CHAPTER 8

HOME OWNERSHIP AND RELATED PROGRAMS

The one important experience in Canada with public assistance for home ownership has been that under the Dominion Housing Act of 1935 and its successor the National Housing Act, since 1938. Although these are two separate acts they provide in fact a continuous experience of government assistance to housing since 1935. Although the National Housing Act contains the main features of the plan, its operation cannot be judged by reference to the Act alone, for some of the procedure has been implemented under administrative regulations which are not made public.

The essential point of the National Housing Act was the putting of public money directly into housing loans. The lending institutions relied on have been predominantly insurance companies; these have been the parties making the loan on mortgage to the home owner or builder, and the individuals deal with the company rather than the government. The interest rate is 5 per cent, with monthly payments sufficient to amortize the principal amount in not more than twenty years. The lending company obtains 80 per cent of the amount of the loan from its own funds and 20 per cent from the government at an interest rate of 3 per cent. On this basis, the actual return to the lending institution is 5·66 per cent.

In addition to the direct capital contribution, the government under the N.H.A. has given guarantees to the lending companies with respect to possible losses under housing act loans. These guarantees may be with respect to particular loans or may be pool guarantees. In either practice the scheme has been distinctly generous to the lending institutions.

Postwar Aspects

The material in previous chapters indicates the immense scope of housing requirements in the future. It is not possible to indicate with any exactness at this stage how much of the post-war program will be in rental housing, and how much for owner-occupancy. If it is assumed, however, that half of the total program (other than farm housing) is composed of dwellings built for ownership, this is an undertaking of the order of 300,000 houses in the next decade or so; and in addition there will be sizeable farm housing requirements. The implications of this must be measured against the fact that during the peacetime years when Part I of the National Housing Act was in force, an average of less than 5,000 houses a year were built.

The National Housing Act should not be evaluated on this record alone. It proved an admirable device for encouraging the investment of sums much greater than those which were expended from the governmental treasury. It also served, though considerably late in the day, to break the apparent impasse which had been reached in the field of real estate mortgages and house construction: it permitted lower rates of interest, and encouraged new borrowing. But there is evident need to extend the range of the Act, even within the income groups for whom the measure was originally designed, and which experience has proved are able to take advantage of assisted financing which brings repayment sums in the neighbourhood of $25 a month. It is well known that in some sections of the country, in some of the smaller urban centres, and in certain districts of the larger cities, little or no utilization of the Act was secured. Either the lending institutions were reluctant to extent credit facilities, or the residents were not able to provide the down payments or to contemplate the obligations

involved in the long-term aspects of the loans. In spite of the guarantees to the lending institutions, the risks were considered too great in some areas. Undoubtedly some of this hesitation was justified in urban sections liable to blight or unprotected by town planning. Even so, it would be unwise to assume that town planning alone will open up the utilization of the Act to the extent required.

There is some reason for the belief that housing costs will be lower on a number of counts in the post-war period than at present, and that private enterprise housing may have a larger market. If economies in construction costs are to be available, the appropriate income sections of the population can no doubt be tapped a little more fully than before. If house-building is to be more efficient in the future, however, this is an added reason for considering ways and means of rendering the financial requirements more flexible and less costly.

It has been recommended elsewhere, and it is strongly reiterated here, that proper neighbourhood and site planning must be insisted on as a prerequisite before any governmental aid to loans in the home ownership category can be given. This does not necessarily mean that the master plan for the whole city must be completed and approved, though in the last analysis this is the only firm guarantee. It does mean that location of the site in the most probable systematic pattern of the city should be settled with reasonable certainty, and measures to safeguard the area properly implemented. This principle is vitally necessary for the protection of real estate values and urban standards generally. It should be explicit in the Act, and provisions for enforcement should be included in administrative regulations.

A further safeguard may be applied through proper building supervision when houses are being constructed. This aspect of housing administration should, of course, be related to the functioning of the Dominion Town Planning Agency recommended elsewhere, and to the development of models and designs best calculated to effect economies and improve standards. The necessity of accelerating the acceptance of an up-to-date building code, now available through the National Housing Administration, is also relevant, and is referred to further in Chapter 11.

The past experience of the operation of Part I of the National Housing Act would seem to be clearly that the reduction of the down payment would not greatly enhance the risk. It is also clear that the repayment costs of the total loan can be reduced through extending the period over which the loan is paid off, without adding seriously to the risk. In remodelling the Act for post-war purposes, therefore, it is recommended that loans for owner-builders should be available up to 90 per cent of the loanable value; and that the maximum period for amortization of loans be extended to thirty years. It will be necessary to decide whether this type of assisted housing is intended particularly to cater to the comparatively low incomes of the middle income group, or to encourage the building of properties of more expensive type. A maximum of $6,000 for the total loanable value per unit would appear to be reasonable.

It will be necessary to consider whether an interest rate of five per cent for home-purchase undertakings is too high in the light of present and expected post-war levels of interest rates generally. It is practically imperative that in order to attain sufficiently low costs and low rentals for public (rental) housing projects, the maximum rate should not be more than 3½ per cent. The difference in standards between individual homes built for purchase, and the more moderate units and groups which will probably be designed for low-rental assistance, will perhaps be sufficient to justify some extra cost of financing; but it will not be reasonable to maintain too high a margin between the two branches of housing finance. On this basis a rate for assisted home-ownership at least as low as 4 per cent seems indicated.

Mortgage Insurance

One of the basic distinctions between the Canadian and the United States methods of assisting home building for ownership is that the Federal Housing Act (United States) insures mortgages rather than makes any capital contribution. Mortgage insurance under the FHA has been extended on a very large scale to both home ownership and rental housing. The Act specifies the approved lending institutions, and the types of residential property concerned, and has extended the obligations up to 80 per cent of the appraised value of the properties, with a maximum of $16,000. Maturities are allowed up to twenty years, instalment payments being arranged on a monthly basis to include repayments, interest, and a mortgage insurance premium charge.

Under the original legislation (1934) the interest rate was held to a maximum of 5 per cent, and this was further reduced in 1941 to 4½ per cent. The premium charge for the mortgage insurance, was at first set at between ½ per cent and one per cent, according to the risk involved; and a reduction of ¼ per cent was made later on outstanding balances of mortgages valued at $6,000 or less which had been accepted prior to July, 1939. The arrangement in the case of foreclosure is that the mortgagee conveys to the Federal Housing Administrator all title to the property, and receives Mutual Mortgage Insurance Fund debentures equal to the unpaid balance. These bore interest originally at a rate determined by the Administrator but not exceeding 3 per cent, this being reduced to 2¾ per cent in 1938.

A nation-wide organization was set up under the Mutual Mortgage Insurance plan, and a system of mortgage risk rating was devised. According to the reports (as described in Chapter 3) steady progress has been registered towards lower cost housing and lower monthly financing costs for home purchase and the use of FHA home financing by families of modest incomes has broadened. The median income of families purchasing new homes financed through insured mortgages in 1941 was $2,250, this was the lowest on record at that time; it may be noted that it is still comparatively high in relation to some of the wage-earner income figures analysed in Chapter 5.

In a recent survey conducted by the *Architectural Forum* a strong measure of approval was extended by building and lending interests to the insurance procedures of FHA, in the following terms: "By making available a steady flow of building funds, it revitalized a badly crippled industry. Higher minimum building standards were established which afforded a measure of protection to the honest builder against the unfair practices of the jerry-builder. Its contributions to mortgage banking were scientific appraisals, the invaluable long-term amortized loans and improved construction and inspection standards." In recent years, as a war measure, but probably as one which will continue, loans which are on a 90 per cent basis have been admitted to insurance.

In the Canadian situation, if risk factors are one of the causes preventing the more extended utilization of Part I of the National Housing Act, the establishment of a system of mortgage insurance underwritten by the Dominion government should be given consideration. United States experience indicates that the system can be maintained at very small cost, and that the proportion of foreclosures which had been absorbed is well within the capacity of the fund. If it is to be added to the existing Canadian system, it must be devised in such a way as not to raise the interest costs from their present levels. The current American rate, at 4½ per cent interest and ½ per cent for insurance, equals the Canadian rate of 3 per cent, while the latter provides the lending institutions with a better return (5·66 per cent) than is offered in the United States. If, for example, the interest rate could be set lower than 4½ per cent, and mortgage insurance can be provided in Canada for ¼ per cent, this would achieve a financial economy as well as a guarantee serving to widen the range of the Act.

It is arguable that the American procedure had to deal with a much more serious situation of caution and restriction among the lending institutions. At

the time of the institution of the first National Housing Act, reputable lending agencies commonly refused to make mortgages on more than 60 per cent of the cost of a home, and limited the period of amortization of their loans to ten years.

It is to be noted also that in the United States, lending institutions are so multitudinous, varied in size and type, and scattered that the mortgage insurance principle was probably the best that could be devised for stimulating home-ownership. In Canada a few large lending institutions account for a majority of the market, and are in a better position to accumulate their own guarantee fund. The system of "pooling" plus government provision of part of the funds can be more easily utilized, therefore. There have been little or no losses under the Canadian procedure; and there has been no difficulty in providing for cash settlements, rather than the issuance of new bonds carrying 3 per cent or thereabouts.

The Canadian system has made a variable amount of government credit available to purchasers of homes, thus reducing the cost of borrowing to the prospective home owner, while maintaining an attractive rate of return to the lending institution. Since part of the risk is borne by the lending institutions themselves, they have had an incentive to increase the number of their loans in order to build up the guarantee fund and spread the risk over a larger number of mortgages. The Canadian system also, at least potentially, has greater flexibility than the American. By varying the government contribution to the guarantee fund (as distinct from government contribution to the loan) allocation of loans can be more closely related to needs for housing, and capital can be directed to geographic areas and income groups otherwise considered too risky for private enterprise. If it were felt desirable to stimulate home ownership in particular areas or among special groups—such as farmers or co-operatives—lower interest rates to borrowers could be accomplished without reducing the rate of return to lending institutions, simply by increasing the government's share in the mortgage. Alternatively, the rate to the lending institution might be reduced, and the lower rate of return guaranteed by the government so that mortgages would not lose their appeal for private investment.

There may well be certain areas or fields, however, where mortgage insurance would be relatively advantageous, and an expanded National Housing Act could make provision for utilization of this alternative method of stimulating home ownership wherever it seemed desirable. For example, where the funds come from lending institutions of a type not approved under the National Housing Act, such as credit unions, mortgage insurance might be an extremely helpful device.

A different kind of mortgage insurance has a contribution to make from another direction. It might be described as a personal insurance policy for house purchasers, or equity insurance (protecting the debtor) as distinct from mortgage insurance (protecting the creditor). Consideration should be given to the institution of a simplified form of such insurance, to protect the home purchaser against loss of equity in the event of his death or disability before completed payment of the mortgage. As a guarantee against a hazard which deters many who might otherwise undertake home-purchase, this would go far to encourage participation in the facilities of Part I of the National Housing Act. If a suitable policy at a sufficiently low rate, and a standard, simplified basis, is not obtainable from the private insurance companies, it is recommended that the Dominion government should create and administer such a policy.[1]

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[1] Little attention has been given to the possibility that sinking funds might be organized (on a small periodic contribution basis) to permit systematic replacement of houses after a term of years. Such a plan should probably be differently devised for houses built by private investors, and for public low-rental projects, respectively, but in the former case some commutation of the equity insurance in the event of completion of the mortgage might be feasible. For an illustrative article on this point, see "Those Postwar Houses", by Bernard B. Smith, *Harper's Magazine*, July 1943, pp. 108-114.

Supplementary Administrative Measures

A secondary need of some importance is required to facilitate the administration of existing assisted-financing measures, which would also require attention in the event of the extension of mortgage insurance. This is the desirability of more uniform and simpler foreclosure proceedings in the several provinces. The possibility of securing such codification of provincial laws should be one of the topics considered at the Dominion-provincial conference on housing recommended elsewhere in this chapter.

It should be accepted without the need of argument that proper neighbourhood and site planning should be prescribed as a prerequisite for the approval of home ownership loans. The details of what will be regarded as adequate planning might even be made explicit in the Act; if not here, certainly in its regulations.

A related matter is the improvement of technical supervision during construction. This subject should be reviewed by government departments with experience in this field, including the provincial governments, and a consolidated procedure established. To cope with post-war programs it will be essential to strengthen the number and quality of supervisory personnel and the addition of properly qualified inspectors to the Housing Administration should be planned, if at all possible, before the end of the war.

Whatever Housing Administration is set up should include within its organization measures to encourage better and more flexible house design, the scientific and intelligent use of materials, and higher building standards. It should act as a clearing house for all progressive developments in this field, circularizing from time to time the housing interests in the building industry with the latest developments in sound and economical construction methods. The effect would be better integration within the building industry, better-constructed homes, and improvements in group lay-out and street design throughout the country. Improvements in design in residential building, particularly in the small-house field, are badly needed. Architects should be encouraged to aid this process by participation in government-sponsored competitions, by research, and by the provision of type plans which could be available to local housing authorities and to the public at a reasonable rate.

Lending Institutions

There are many methods by which houses may be built and financed. The challenge of the post-war demand is such that all institutions which are able to make a contribution to improve the housing supply of the nation should be given the opportunity to make their contribution in co-operation with government measures of assistance which may also take several different forms. The special merits of co-operative techniques are such that they deserve detailed description, which is undertaken below. The role which has been played by Building Societies in Britain (referred to in Chapter 2) also deserves some attention. As compared with their extensive operation in the United Kingdom, there are only a few examples of these institutions in the Dominion. The nature of co-operative organization for house-building, and the work of building societies as intermediaries for mortgage credit, are described in special Appendices, E and F. In the framing of new housing legislation, regulations should be drawn up in such a way as to ensure the application of any measures of assistance to all such institutions in their appropriate fields. The National Housing Act in its original form provided particularly for limited-dividend associations which might be formed for the purpose of building low-rent housing, but little development of the idea took form under Part I of the Act.

A development which has received considerable attention in the United States is the undertaking of actual house construction and operation (as distinct from dealing in mortgages) by some of the larger insurance companies. There are many potential advantages in such activity, more particularly those of large-scale production and efficient design; while the properties have proved to be revenue-yielding at very satisfactory levels in comparison with the rates which insurance institutions are commonly able to secure for their more traditional types of investment. There would appear to be excellent reasons for encouraging similar developments by insurance companies and other bodies administering trust funds in this country. Modification of the charters of such institutions would be necessary, but it would be also entirely feasible to write into such modifications regulations which would provide adequate public safeguards. Reputable institutions would not want to construct housing estates, apartments or other units which do not meet good standards; and a substantial contribution might be secured in this way to rental housing designed for the middle and upper brackets. It is not likely that they would enter the field of low-rental housing, and it would be a mistake to assume that these new facilities for insurance companies and comparable agencies would remove the need for public housing. They are more likely to cater for the middle or even high income groups. There is no reason, however, why the financial institutions might not take part in certain measures of slum clearance, more particularly in districts of the larger cities where the land might be more valuable (even with some equalization of rates obtained through town planning) than would be suitable for low-rental developments.

Housing Repair and Improvement

Repair, maintenance and renovation, as distinct from new construction, has a special importance in post-war programs. This is true not merely because a great deal needs to be done; and this is not confined to the run-down districts of our larger cities—it has perhaps a special place in the smaller towns, and most obviously of all in the rural and farm areas. The particular value of strengthening all possible facilities for maintenance and improvement types of work is that such work can be easily started with little advance preparation; the materials required are comparatively few and readily available and the effects of the expenditures and employment can be widely dispersed throughout the country. Clearly, therefore, a well organized program in these fields may be specially appropriate and welcome in the immediate transition period, when projects will be needed which can be initiated rapidly, without the heavy demand on specialized labour and key occupations and on some of the major materials, particularly steel, which may be required for other forms of construction (particularly plant reconversion).

The implication is that along with measures of financial assistance, there should be co-ordinated arrangements for the release of materials such as paints, certain forms of lumber, nails, some metal products, plumbing equipment, etc., from the present priorities and allocations directing them into wartime production. On the other hand, certain dangers should be guarded against. A renovation program is no substitute for a program of new construction, the need for which is demonstrated at various points in this report, but a valuable supplement to it. Conceivably also there could be considerable conflict in urban areas which should properly be marked for demolition if the properties in these areas were to be made the subject of extensive refurbishing, including the conversion of old buildings into flats and other residential units. This consideration reinforces the need for getting the broad lines of town planning laid down before any post-war works programs are placed under way. Perhaps the risks of rehabilitating properties which should be handled by more drastic

programs are least in settled agricultural areas. The crying need for better standards of accommodation and of housing equipment is so great among the farm population that in any Home Improvement Program for the post-war period, a special branch should be established which will devote itself to features making the program particularly appropriate and accessible to farmers.

Estimates of the possible amount of such repair and improvement activity in the farm areas are made elsewhere (Chapter 10). It is possible to summarize here some of the chief indications of available statistics with regard to such needs in the larger and in the smaller cities. In considering the figures, it must be remembered that the principal appeal of assisted home-improvement financing is to owners rather than to tenants. A number of these are likely to be in the position of having funds accumulated during the war which they will be willing to use on improvement of their houses; but others will not be induced to do so without some special stimulus under which loans may be obtained. Presumably, however, landlords would not be prevented from taking advantage of the provisions. It is not to be forgotten that the timing of the legislation should be utilized, as is suggested for other housing and town planning measures, to fit into the general strategy of employment—stabilization—policy.

The number of dwellings in the major cities in need of external repairs and lacking access to flush toilets and bathing facilities, may be placed at 256,000 units. Of this number, it has been suggested (Chapter 4) that 100,000 might constitute a minimum replacement program; so that the remaining 156,000 units would be a substantial part of a home improvement program.

There are no exact figures available for the smaller cities and towns. It is desirable to apply to these less stringent criteria than those applied to dwellings situated in the major cities and in particular to omit the criterion of the presence of bathing facilities. It is estimated that approximately 40 per cent, or about 250,000 units, of the dwellings in the smaller urban centres are in need of external repairs or without separate flush toilets. As 50,000 units have been taken as the basis of the minimum replacement program in these areas, there remain 200,000 units to constitute part of the home improvement program. The total home improvement program for *all* cities, towns and incorporated communities could therefore comprise approximately 350,000 units.

Some information on expenditures involved in a home improvement program is available from the administrative experience of the Home Improvement Loans Guarantee Act, 1937. In four years' administration of this Act, about $50 millions were loaned to over 125,000 applicants, the average home improvement loan amounting to about $400. The lowness of the average arises from the inclusion of a number of loans made to home-owners in rural areas, who did most of the work themselves. The average loan for a home improvement program in urban areas would therefore be somewhat higher. On the basis of an average expenditure of $500 a home improvement program comprising 350,000 units in all Canadian cities and towns would involve an expenditure of $177·5 millions. This is three and a half times the amount of money loaned under the Home Improvement Loans Guarantee Act between 1937 and 1940. The net cost to the government would, of course, be only a fraction of this amount, even if the rate of interest set for such loans were subsidized in order to make it very low.

Improvement Program: Recommendations

The Home Improvement Plan, as placed in operation during 1937 to 1940, made loans available to householders and farmers through the banks as intermediaries. The purpose of the loans was specifically designed to include financing the repairs, alterations and additions to existing urban and rural homes. Arrangements were left to be made between the bank and the individual concerned. The participation of the banks in the scheme was secured through a government guarantee of repayment of at least 15 per cent of the loans.

During the 4 years of operation, the total volume of loans taken out was about $50 millions, of which about $6 millions or 12 per cent were utilized for farm improvement. There was a very small rate of loss, amounting to 0.75 per cent up to March 31, 1943. Home Improvement loans could be secured up to the amount of $2,000 for one-family homes, and for larger sums in the case of multiple housing. They were repayable for periods varying from one to five years. The loans were on 3¼ per cent discount basis, which is equivalent to an effective interest rate of 6.32 per cent for one-year loans and slightly lower rates (down to 6.10 per cent) for the longer terms.

1. In the light of the arguments reviewed above, the general principles of this type of facility are endorsed as being extremely valuable in the immediate post-war period and thereafter. The legislation should be continued and improved, with a special schedule of conditions covering its application to farms; and the whole embodied as a special section of the reconstituted National Housing Act.

2. To encourage wider participation in improvement and repair programs throughout the country, the effective interest rate should be lowered, preferably at least to 5 per cent effective. An even lower rate should be considered for farm application, if necessary secured by a subsidy. Farm improvement should be specifically defined; and farmers, for purposes of this legislation, understood to include only persons whose sole livelihood is from agriculture (or possibly the directly related activities of lumbering or fishing in areas where this combination is traditional practice).

3. A review of repayment arrangements should be undertaken. Besides the discount method, which was followed under the former Home Improvement Plan program, there are two possibilities, (*a*) the ordinary repayment on a "straight" interest basis, (*b*) a "blended" payment. The method of blended payments of principal and interest, equalized in monthly instalments, which is easily understood by the borrower, has much to recommend it. In the case of loans to farmers it may be desirable to equalize these on a nine-months' basis or some other period more adapted to the seasonal nature of agricultural operations. The simple interest method would recognize repayment sums as ordinary payments on account, the payment being the first credited to the note as interest and the balance of the payment to principal.

It is possible that all three methods might be made available, leaving the choice to the borrower. Review of all the methods would provide an opportunity for the consideration of a subsidy to the banks which would be transferred, through a lower rate of interest, to the borrower. This might be achieved, alternatively, by the government assuming the administrative cost of making the loan at so much per entry or per loan; the entry basis might be preferable since it would permit smaller repayments to be acceptable to the bank.

4. Either in connection with home improvement legislation, or separately, plans should be worked out as soon as possible for the securance of materials and equipment released through the demounting of temporary housing and other buildings erected in the various industrial centres of Canada. Unless arrangements are made for transportation, farmers in the more remote areas may be handicapped in being able to take advantage of the purchase of this material and equipment at economical rates. Consideration should, therefore, be given to providing some priorities of purchase in farm communities.

5. As a form of subsidy which would be direct and appropriate, consideration should be given to the furnishing of certain types of equipment, such as electrical transformers, to farmers gratis or at nominal rates. These could be stamped with number or names and rendered non-transferable. It is possible that if these were combined with farm improvement loans, they might be a better substitute for a lower interest rate.

Industrial and Company-owned Housing

It is a fact of considerable importance that large numbers of houses in our newer industrial areas (and a few of the older ones) are built or rented by business corporations. Some of the principal fields in which such housing is characteristic are the mining areas in the Maritimes and Ontario, pulp and paper and wood-fibre enterprises in Ontario, Quebec, Nova Scotia and British Columbia, the aluminum, nickel and associated water-power developments in Northern Quebec and Ontario, and some of the oil company areas.

Company housing may or may not be desirable, and much depends on the standards which prevail. In Britain the idea of the provision of dwellings for working people by their employers was first projected by Robert Owen as an improvement upon the insanitary jerrybuilding of the early factory towns, while in the late 19th century model estates such as Saltaire, Port Sunlight and Bournville were built from reformist motives. Some of the best examples of industrial housing in Europe have been provided in the mining areas of Northern Sweden both by wholly private corporations and on a "semi-public" (or combination of private and governmental ownership) basis. Canadian industrial housing has had a different origin, being developed simply as part of the process of opening up an industry in areas which previously were virtually unpopulated.

The rental units which form part of the present Canadian supply have not been separately enumerated, but undoubtedly number many thousands. Some of them are of modern construction and meet good standards. Others have been subject to severe criticism on the grounds of lack of repair, obsolescence, inadequate sewage conditions, or unplanned layout and surroundings. It is true that rentals are sometimes low compared to the rents which might be secured for similar properties elsewhere, though low rents as one of the privileges of working for a particular employer are not an unmixed advantage since they increase the sense of the workers dependence and constitute an industrial parallel to the "tied cottage" in agriculture. The managers of company-owned houses, on their side, are frequently able to point to lack of co-operation (in care and maintenance, etc.) on the part of their tenants.

The situation is not without its special difficulties which are somewhat akin to those which have to be solved for low-rental housing developments. It is an important fact, however, that at present no legislation exists either authorizing the erection of company housing (as is the case in Great Britain) or governing the character of the houses to be provided by employing companies. With the exception of one province there is a complete absence of company-town regulations in Canada and even in this instance the regulations do not apply to the nature of the housing accommodations which are supplied. Legislation controlling the character of dwellings provided by employing companies is desirable, particularly where there is little or no possibility of a supply of low-rental housing forthcoming from other sources. The absence of incorporated municipal governments may also in some cases remove the possibility of local town planning or rehousing measures (unless the provincial government provides substitute action for this, as suggested in Chapter 7). It is therefore recommended that company-owned housing be given appropriate attention in the drafting and codification of provincial health and housing laws.[1]

Co-ordination

Two important matters remain, which are of concern for all branches of housing, but may most conveniently be stated here. First, in the interests of efficiency in administration, it is strongly recommended that all Dominion

[1] It is understood that legislation relating to company housing may be introduced in Nova Scotia which will be more extensive in coverage than the Company Towns Regulation Act of British Columbia.

legislation relating to housing should be reconstituted and placed in one statute, which can be divided into appropriate parts. In conformity with this also, there should be one co-ordinated division of government responsible for all Dominion housing activities. United States experience, which has passed through various stages of diffused action and divided authority, which has now been adjusted by co-ordination, is conclusive on this point.

The requisite unit for Dominion participation in town planning promotion should be closely related to the Housing Division, but separate as to powers and administration, i.e. the Housing Division should not be subordinate to the Town Planning Agency, nor vice versa. Because their functions are of long-range and continuous character, the two agencies should be set up in one of the permanent departments. It is not considered desirable, however, that this should be the Department of Public Works, in its present form.

Secondly, since nearly all branches of a post-war housing and town planning program require the participation of provincial as well as municipal governments, it is recommended that the Dominion government, as soon as its policy on housing and town planning has been determined, take all necessary steps to confer with the provinces on the financial and administrative arrangements involved in a nation-wide program. It is suggested further that a desirable method of continuing Dominion-provincial and inter-provincial collaboration in what must necessarily be a long-term program, would be an annual conference on the whole field of Housing and Town Planning. The topics covered would naturally change from year to year, but in line with the views expressed in Chapter 10, it would seem reasonable to make special provision for rural and farm aspects of housing to be on the agenda at each session.

CHAPTER 9

LOW-RENTAL HOUSING

The proportions of the post-war program which will be supplied through publicly-assisted building for ownership and publicly-assisted low-rental housing will depend on a number of factors on which no decision has been attempted in these pages. The relevant facts and considerations have been assembled, but they need to be supplemented, among other things, by local surveys. These proportions will be determined not only by the preferences, or even by the resources of the populations to be housed, but by the relative efficiency, quality of design and attractiveness of the housing, both public and private, which is supplied in the early stages.

But that a very large and long-range program of low-rental housing must be contemplated, is an inescapable conclusion from the available facts. This is a serious matter since there has been little or no experience of such housing in Canada as yet. Part II of the National Housing Act, which was specifically designed for this purpose, was never utilized to the point of getting housing actually constructed. In part this was due to lack of understanding of the subsidy features of the legislation, and probably to inadequate educational campaigns on the advantages of rehousing the most poorly-accommodated sections of the cities. It was also partly due to the fundamental difficulties of municipal financing, and to the need of fitting new housing satisfactorily into the local tax structure, to which attention has been drawn elsewhere.

It is true that in some cities, notably Montreal and Winnipeg, the persistence of citizen groups came very near to achieving the completion of housing schemes; and had not the war supervened, some examples of publicly-assisted low-rent housing would probably now be in existence. Their value in pointing the way, and their experience even over a few years, might have been enough to change the present picture. For demonstration is the most badly needed element in low-rent housing policy: to exhibit the contrasts between decent rental housing and existing slum and substandard properties; to show the effects on the residents, especially children, of better and healthier environment; to establish some of the economic advantages to municipalities of transforming some of the most costly sections of towns and cities, to say nothing of the more subtle influences on civic pride and morale; not least to give some experience in the bookkeeping of low-rental projects, and an indication of what rents it is necessary to charge. One of the blind spots in thinking of housing policy is the belief that low rents mean rents of the order of $20-$25 or even more, when considerably lower figures are necessary, for unskilled and low-wage workers, workers whose employment is irregular, or families with more than the average number of children. Until this perspective is righted, progress in catering for the needs of this section of the population (some of which is rural as well as urban) can hardly be expected.

Against this background, it is clear that the terms of existing legislation for the purpose of facilitating low-rent housing construction must be subjected to close scrutiny; and that there is strong probability that comprehensive revision will be necessary to ensure participation in sound low-rental projects in all the areas in which they are most needed. Accordingly, consideration has been given to all the elements, small and large, which seem to have relevance to this subject.

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Recommended Procedure

Capital costs. In view of all the circumstances of the Dominion situation, the most expeditious and desirable system is that the federal government should contribute the main capital costs. This could be done on the basis of a 90 per cent loan on the completed project. A workable principle would be to value the improved property (including land and the finished buildings) at 10 per cent more than the construction costs, in recognition of the enhanced value of the property as a going concern. Land should be furnished by the municipality, and by this device the municipal government would be reimbursed for the cost of the land. In some cases this cost may be purely nominal; in other cases it may have to be acquired at some cost.

Direct lending by the Dominion Government to municipal authorities is a different procedure from that which has been followed under the Housing Act in the United States. Under this, municipal Housing Bonds have been floated, usually at $3\frac{1}{2}$ per cent, while federal money has been obtained at much lower rates (about $1\frac{1}{8}$ per cent). This complication has been accepted apparently in order to preserve the conventional features of current municipal financing. Whether desirable or not, it is not directly applicable to Canada. Municipal bonds for utility purposes cannot be issued without carrying the obligation of being backed by the tax revenue of the local authority, a feature which might be undesirable for such a project as low-rent housing. Secondly, the direct Dominion financing should unquestionably secure a lower rate than municipal borrowing, even though the latter has been acquiring good status in recent years. Furthermore, the recommended procedure would avoid the necessity for provincial guarantees which, even if not actually provided, might be regarded as implicit, for the bonds of a municipal agency created with the sanction of a provincial charter.

Under the procedure recommended here, it should be possible for the (low-rental) housing projects to be financed at 3 per cent, plus $\frac{1}{8}$ per cent to cover administrative costs. It could hardly be expected that municipal or local housing authority bonds could be marketed at less than 4 per cent. However, it is assumed, as recommended elsewhere, that a Dominion-provincial discussion will precede the inauguration of low-rental housing projects, and there is no reason why provincial or municipal flotations should be precluded if the governments concerned desire it.

It seems desirable that a definite term should be set to the period of amortization. For housing projects, a length of 25 years, with the bonds subject to renewal at the end of that time, seems appropriate. In effect this would not unduly restrict the consideration of housing projects as long-term plans, provided that refunding arrangements covering the useful physical life of the building may be kept in view. It need not necessarily involve the arrangement of sinking funds to complete a capital liquidation within this period, and renewal should be comparatively easy for a much reduced sum. It is desirable, however, to set some term to the length of life of buildings, and the initial mortgage would have this implication.

Annual subsidy. For the purpose of meeting the low-rental character of the project, i.e., the essential point that its costs cannot be solely met from rental revenues, an annual subsidy is considered the best and most practicable system. It has the merit of being flexible and subject to variation if circumstances or experience demand. It is straightforward in effect, and understandable as a rent reduction fund applied to a clear-cut social welfare purpose. It seems unquestionable that a substantial part of this subsidy should come from the Dominion Government. However, there should be room for provincial contribution, and even in some cases (notably in the larger metropolitan cities) a municipal contribution. In the context of a fully developed national program of community planning and rehousing, it may be preferable that the subsidy

should be provided wholly by the Dominion Government, with provincial contributions in this field being devoted especially to rural and urban planning. But clearly this hinges to some extent on the division of labour for post-war purposes between the Dominion and the provinces on welfare services generally, and on their financing. It is one of the matters which should be considered in relation to others decided at the time when Dominion-provincial fiscal policy is settled.

The exact amount of subsidy will depend on the limits set for the construction costs on low-rental projects (referred to further below), and the extent to which these costs cannot be met by the adjusted rental levels. However, a minimum would be of the order of 3 to 4½ per cent of the total cost, which would in effect be the interest rate the Dominion government would otherwise get for its loan. It will be necessary to consider desirable rent schedules, and cost computations for typical units, before the amount of subsidy is finally set. Attention is drawn here to a proposal made some time ago by the U.S. National Association of Housing officials that an account should be set up, termed the National Contributions Adjustment Account within the framework of the national legislation, to provide more flexibility for the operations of local authorities.[1]

The Role of the Municipality

The agency for local construction and operation should be a properly constituted Municipal Housing Authority, a separate corporate body somewhat on the pattern of existing utility commissions. It would be the agent of the municipal government for all matters relating to low-rental projects, and would probably submit to it an annual report, but would in fact be an autonomous body so far as its business operations were concerned.

The composition of the Municipal Housing Authority should probably be similar in size and constitution to the local Planning Board. Its membership should be comparatively small, perhaps with a member appointed by the local government, another by the provincial government, and one representing the Planning Board. It may also be appropriate that an appointee of the Dominion government should be added. In the choice of appointees, the special contribution which may be made by women interested in housing conditions and in satisfactory housing design, should be borne in mind.

The setting up of these authorities is almost a new development for Canada, although some progress in formulating desirable charters was made in the course of abortive attempts to undertake low-rental housing under Part II of the N.H.A., and valuable experience has been gained also under the Nova Scotia Housing Act. The charters would presumably be granted through provincial government authority, and many of the features would be similar to those of public utility corporations. It is recommended none the less that special attention be given to ensuring that such charters are designed not merely as satisfactory legal forms, but with the essential purpose of housing for low-income groups kept in the foreground. It might be a desirable function of the National Housing Authority in the Dominion government to consider a model form of such legislation, and suggestions to the provinces along such lines would no doubt be acceptable.

The charter of incorporation would presumably enumerate the arrangements made between the Municipal Housing Authority and the municipal government (or governments, where more than one might be involved). These would relate particularly to the registration and conveyance of the land required, and the principles on which the authority would be subject to paying local taxes. It

[1] The purpose of this proposal is indicated later.

should always be permissible for the Housing Authority to be so constituted as to cover a number of adjacent or related municipalities, also county, school or other large districts, where this is appropriate or convenient.

Local taxation policy

One of the most critical points, which past experience has shown will determine the response of cities and towns to low-rent housing legislation is the basis on which the project will be related to the municipal tax structure.

Various expedients in the form of tax remission or exemption have been proposed as a device for securing a financial contribution from the municipality. Under the original United States legislation, local governments were required compulsorily to make annual contributions equal to one-fifth of the government grant. This could be done either in cash or by equivalent tax remission. In practice, in those municipalities which participated, their commitments frequently exceeded 20 per cent. At least part of the difficulty was the considerable variation in practice which occurred. Although not laid down as one of the formal requirements of the Act, the Federal Housing Authority was empowered to make contributions in lieu of tax remissions, but the arrangements and amounts have varied between one local government and another. A significant development is that for war and defence housing projects in the United States a similar policy was at first adopted, but this has now been changed, and all war housing pays (from federal funds) the full amount of the local taxes. A distinction is still drawn because the one form of project (war housing) is not necessarily for low-income tenants, and the other is; but it is reasonable to expect that the principle will have its influence on all public housing projects.

Tax exemption has become an increasingly difficult problem for many municipalities. Real property is almost the sole source of revenue for local governments while social welfare costs are likely to be enlarged in the future. Recognition of the problem in several provinces is leading to the policy of transference of some charges, particularly education, to the provincial government. It is better to recognize that subsidized housing requires revenue to be collected from some part of the community, nationally speaking, for redistribution in the specific form of low-rental housing, and to place this levy where it can best and most equitably be collected. Further reduction of the taxing power of the municipality is the greatest discouragement that can be placed in the way of local governments, and may do more than anything else to delay their participation. Further, it is apt to be an inflexible form of subsidy which may easily lose its relationship to need; and will certainly strengthen the barrier of discrimination between the population in low-rental houses and other sections of the community.

On the other hand, it has been argued that the apparent loss through tax exemption is actually offset in the long run. The removal of slum areas reduced many municipal costs (such as police and fire protection, etc.); subsidies received through federal and other sources release income of the inhabitants for expenditure within the community, and improvement of the area encourages neighbouring construction both in residential and other forms. The net effect may, therefore, be an increase in general tax revenue. This argument, of course, has force only if the clearance and rehousing of the area would not have been undertaken by private enterprise, which, however, is true in the case of low-rental projects.

Part II of the (Canadian) National Housing Act attempted to secure some concession from the municipalities, which did not amount to out-and-out tax exemption. It would have been necessary for municipalities undertaking low-rental projects to agree not to levy municipal taxes to an amount of more than one per cent of the cost of construction. It is arguable that a better understanding of the differences of rehousing the low-income groups, and also of the other subsidy features of the N.H.A., could have won over more of the munici-

palities in the country than proved to be the case. On the whole, however, in view of the fundamental importance of preserving the revenue position of municipalities rather than further impairing it, and also because of the value of integrating low-rental housing projects into other parts of the residential structure of communities as far as possible, a procedure which avoids the device of tax exemption or remission is considered greatly preferable.

It is imperative that the tax rate for the new low-rental housing areas should be comparable to the average level prevailing in the municipality, and safeguarded by a guarantee that it will not be raised above the average level for an appropriate period (which also should be stated). A second and equally important part of the formula for municipal taxation of low-rental project areas applies either to (*a*) the cases in which houses are built on new land as distinct from a formerly built-up area, or (*b*) the adjustment for the future, beyond the pre-existing level of the area, where the density of occupancy in the area increases substantially. This principle is that the tax should be set according to density of occupation, which is the most direct index both of the revenue capacity of the area, and the amount of municipal service which it will require.

To restate the principle, the project would not be taxed above the level which prevailed before in the rebuilt area, provided that the density of occupancy in the area is not increased. If the density should be raised the Authority should pay to the local government (according to the per capita increase in density) sufficient to cover any additional costs of local services, schools, police, etc., provided such amounts do not exceed the city average of per capita taxation for the supply of such services. Clear recognition of this approach should be promoted by both federal and provincial town planning agencies; and clarification of the taxation situation of rehousing projects in this form would go far to removing much of the present hesitation of municipalities towards them.

Other financial elements

Two important matters need to be considered, which are supplementary to the general provision of capital for low-rental housing projects. It is important to clarify the way in which all the principal construction expenses would be met, as uncertainties on these points can hold up housing programs indefinitely

The first is the arrangement which should be made to cover development costs, i.e., the expenditures for preliminary surveys, plans, architects' or engineers' fees, etc. Two alternatives offer themselves: (*a*) an outright grant for preliminary development expenses, made from a special Dominion fund established for this purpose for utilization at the discretion of the Minister; or (*b*) inclusion of development costs in the total capital loan.

The former procedure would have the advantage of removing an item from the costs of low-rent housing projects, and thereby assisting the budgetary situation of the project when it is in the form of actual constructed houses. Such a fund would be comparable to the fund recommended elsewhere which may be set up for assistance in town planning and urban redevelopment proposals, but it would be desirable to keep the two funds separate. In either case, however, there should be some guarantee that a Municipal Housing Authority will be set up before the grant can be received. It might be difficult to set up the Authority in the exact form required for the operation of the low-rental housing project, particularly if it was necessary to explore the possibilities of various sites in order to decide on the best; but it should be possible to set by regulation the undertakings that would be acceptable in the interim

Since the municipality has a direct interest in the efficient initiation of the project, this is one item of financing in which municipal participation is quite reasonable. It is recommended that in the case of development grants, 25 per cent of the total should be supplied by the municipal government. This would

serve as an effective guarantee to the Dominion in most cases that the preliminary surveys were sound and in good faith; and it could also give the municipality an interest in the project at comparatively small cost.

The second consideration is the provision of current expenses for actual construction. Here again there are two possibilities. They might be provided in the form of progress payments from the ordinary banks, either implicitly or explicitly under government guarantee. Alternatively, there might be special arrangements for short-term government money, organized and administered under one of the Parts of the remodelled National Housing Act.

Powers of Condemnation and Land Acquisition

It is an important part of low-rental housing legislation, in its municipal and possibly provincial application, to ensure adequate powers of condemning areas encumbered with unsafe, insanitary or blighted property, and to acquire them for new housing developments at reasonable rates. In some provinces the powers of land acquisition are already in existence. A municipality has a prior right of acquisition, which it may exercise by making a purchase offer to the owners; if the amounts are not considered reasonable by the owners, they may be subjected to arbitration. None the less it would seem desirable to review the status of these by-laws and provisions throughout the country, and to draft models which could be recommended to the provinces, looking specifically to the application of these powers to slum clearance and urban redevelopment. In collaboration, the provincial governments should be invited to review the powers of condemnation and land acquisition possessed by their municipal governments, with a view to their special application to blighted and slum areas, and rehousing projects.

The need of speedy action in preparing sites and making sure that cleared land is ready for building is so important that some Dominion assistance seems highly desirable. The sums involved are comparatively small, the purposes for which they are to be spent can be closely defined, but the results should more than justify the expenditure. It is recommended that a special Development Fund should be set up, to be utilized under appropriate regulations as grants to municipalities to cover part of the costs of surveying and drawing of sketch plans for low-rental projects. Its general purpose would be to assist slum clearance and the early preparation of the best location for housing projects. It should be a condition for the receipt of the grants (*a*) that the municipal government or governments concerned undertake to contribute 25 per cent of these development expenses, and (*b*) that they undertake to set up a Local Housing Authority, in the form satisfactory to the purposes of the Act, and within a specified time, to administer the completed project. Where more than one local government is concerned, it should be permissible for an appropriate agreement to be arrived at between the authorities involved.

Federal Government Requirements

1. *Town Planning.* No low-rental project should be approved which is not in an area brought within the scope of town planning to the satisfaction of the Minister. In practice, this criterion might be applied by either the municipal Planning Board, or the provincial Planning Bureau or both, but would require specific definition. A formula which has been suggested in a previous recommendation is that municipalities and other bodies should not have the right to benefit under any federal assistance scheme unless (*a*) the broad lines of planning for the relevant area concerned are laid down, and (*b*) within any area to be occupied by new housing or public works, zoning and planning should be carried out in detail, related as far as possible to a master plan for the region. Both the choosing of the local site and certain other arrangements such as community facilities would be subject to the approval of the local Town Planning Board.

2. *Limitation of costs.* It is usually considered desirable for low-rental projects to establish a figure which must not be exceeded in their construction. Since they are the subject of subsidy, the limit has the effect of helping to confine the projects to moderate standards, and also to set prudent limits to these undertakings on behalf of municipal governments. The formula might run in terms of dwelling units or rooms, e.g., $3,000 per unit.[1] This would require a definition of basic rooms: it is suggested that these should be living room, kitchen, and varying numbers of bedrooms. In some quarters it has been recommended, as an alternative formula, that the limit should run in terms of the number of persons who can occupy the property. In any formula, the figures for limits should not be set until the costs of low-rental projects have been reviewed in the light of up-to-date information on design and technology.

3. *Standardized Procedures.* Standard accounting and regulations of administration should be laid down by the National Housing Administration as carefully as possible, for universal application to low-rental housing projects throughout the country. As a preliminary in the organization of these procedures, it is recommended that a review should be made of the bulletins prepared in connection with Part II of the National Housing Act, and that all relevant parts of these be codified.

4. *Special Low-Rental Subsidy Fund.* It has been laid down in American practice that no low-rental project may make a surplus. If its operation has been such that a surplus is attained, this involves, by statutory regulation, the necessity of reducing rents, with the complication not initially foreseen that some tenants have to be excluded from the properties because their incomes (defined as multiples of the rent) are thus made too high. It has, therefore, been proposed that a national fund should be established into which surpluses of this kind should be payable. This would have the effect of making a small part of the rent reduction fund a circulating fund rather than administering the fund as the source of outright and non-returnable grants. It is similarly recommended for Canadian administration that any surpluses realized from a low rental project in a given area should be returnable to the national Low-Rental Subsidy Fund, which could be used for the general purpose of furthering low-rental housing as the Minister in charge might direct.[2]

[1] The following schedule which gives some unofficial estimates, serves to indicate the range of costs for low-rent units which must necessarily be allowed for, and other qualifications which have to be kept in mind. These figures assume present wage rates and prices of building materials, and postwar levels may, of course, be quite different. As between cities, it is estimated that variation may be of the order of 15-20 per cent. Furthermore mass assembly, particularly if it runs to hundreds of units, can be a major source of economy. Ranges from 10-15 per cent are quoted by some representatives of the construction industry. Equally important, the estimates assume no radical changes in housing construction methods and in the use of building materials.

Size of housing unit [a]	Estimated construction costs
3 rooms, one bedroom, one living room and kitchen [b]	$2,500 – $2,700
4 rooms, two bedrooms, one living room and kitchen [b]	$2,700 – $2,900
5 rooms, three bedrooms, one living room and kitchen	$3,300 – $3,500
6 rooms, four bedrooms, living room and kitchen	$4,000 – $4,200

[a] Bathroom and W.C. not counted as room. [b] Since low-rent houses should probably be provided with basements, the decision as to whether developments will consist of flats or row houses will be a significant determinant of total construction costs, particularly for three and four room units.

[2] The operation of the principle involved might be secured by allowing surpluses to be retained by local housing authorities as a fund usable for improvements on local projects on application to the Housing Administration. It follows that provision for automatic rent-reduction should be omitted.

Project Administration

It is common practice to set an upper income limit, to define the groups who may take advantage of low-rental housing. In so doing, however, there should be an arrangement for flexibility since a number of factors may temporarily raise the income of particular workers. It is necessary to decide also whether the income limit is to be applied only at the time of entrance, or periodically thereafter. Provided the managerial problem is simplified by the institution of graded rents (described below), an income report once a year should not prove objectionable. In general, the rents payable are more important than incomes in determining the selection of tenants. Various systems of setting rents have been applied in the countries which have had extensive low-rental project experience, and after consideration of these it is recommended that a system of graded rents be inaugurated for Canadian projects. These are further described below.

Estate Management. It is an essential feature of low-rent housing projects that each should have a competent estate or project manager. The qualifications required of the incumbents of these positions (who may be either men or women) should not be confined to business ability, but should include the training and temperament necessary for dealing with problems of human adjustment. It is altogether likely that in this country, as in Britain and the United States, training schemes may have to be set up to ensure a sufficient supply (some of which may be obtained from the armed forces and from war industries at time of demobilization). It may be noted that some experience in this direction has been provided recently, in the employment of trained social workers and other persons of competent capacity on Wartime Housing Limited projects, which has proved helpful to the management and popular among the residents. Some of the best American projects have found it desirable to employ not only a project manager, but an assistant manager so that one or the other is always on hand; and also to maintain a consultant housekeeper. The services of the latter have been welcomed once they have become known and have proved of much value to the larger families with small resources, who are naturally prominent among the tenants of these projects. Another feature which is worthy of mention is the economies which have resulted from a careful pooling and budgeting of maintenance and repair requirements throughout the year. Some projects are able to use the tenants in part for this where they include building craftsmen, accepting the labour as partial deduction from rent. The policy of requiring maintenance and cleaning duties from residents of the project has not always been found desirable; it may be more efficient in some cases to retain full-time workers for this purpose. The cultivation of gardens and modest forms of landscaping, however, has nearly always proved popular.

Community Facilities. Large rehousing projects cannot be successful unless at least a minimum of schools, playgrounds, etc., are included. There is general acceptance in the United States and Britain of the view that rehousing developments should be utilized as an opportunity to raise the level of such facilities in the community, any facilities which are built in the rehoused area being, of course, made available for the residents of other areas. Because of the importance of developing low-rental projects on balanced neighbourhood principles, community halls and similar buildings are almost indispensable in the total plan.

It does not necessarily follow that the construction of such amenities should be included in the capital cost of the housing project. The inclusion of such amenities, and their location should be subject to the approval of the local Town Planning Board, and this presumably would ensure that they are considered in relation to the community as a whole rather than for a specially delimited sector. On this basis, the general master plan of the area, and the application of density

standards would be the determinants. It may be considered workable to include the costs in the capital financing of the total project, or through an amortization charge liquidated over a period and added to rentals: in the latter case, the amount assessed on all residents need only be a very small addition to rentals. It is perhaps necessary to reiterate that low-rental projects should not be considered solely in terms of shelter accommodation alone.

Graded Rents for Low-rental Projects

Experience in the administration of low-rental projects, particularly in the United States in recent years, has dictated important modifications in the policy adopted to limit the rents of public tenant housing of the low-income families, and to deal with the differences in the capacity to pay which are large even for the low-income group as such.

This experience has crystallized in the distinction between "proportional" rents and "graded" rents. Under the proportional system, the rent is fixed not for dwelling units as such, but simply as a proportion of the tenant's income. The basis made more or less standard under American legislation is that rents should be one-fifth of the family income, unless there are more than three minor dependents, in which case rents should be one-sixth of the total income. If this system is in force in a housing estate, it involves a periodical check of family incomes, and the rents may be similarly adjusted from time to time if substantial changes in income take place. While at first sight this principle seems entirely defensible, and appropriate to the purpose of low-rental housing, it could clearly give rise to much administrative difficulty, and introduce further a definite feature of means testing and tenant investigation which is extremely distasteful to most families.

Under the graded system, the rent is attached to the dwelling unit as such, not to the income of the family. All dwelling units in the apartment blocks or estate are assigned to one or other of the series of grades, with rents fixed for each grade. The adjustment of rents is in practice related to the composition of families, which dictates the amount of accommodation they require, and their income, which is considered in setting the margins of difference between different size-units. But some differences of structure and amenity (size of rooms, outlook and location of the unit, some units of equipment, etc.) may be varied in accordance with the differences in rents. Families are permitted to select the units, with some guidance from the management, which are most appropriate to their needs and resources.

One of the best examples, worked out after careful analysis of housing conditions, incomes, and family composition among appropriate population groups (in Philadelphia) is illustrated by schedules at the end of the chapter. It is helpful also to view in concrete detail the sizes and combination of rooms which have to be allowed for. This is provided by an analytical standard prepared by the American Public Health Association, reproduced in Schedule C.

In the United States a growing number of local authorities have changed from the proportional to the graded system of rent setting, and the latter is now recommended by the Federal Public Housing Authority. Graded rents, once established, are less expensive, simpler to operate, and more objective and impersonal in administration. They recognize the basic relation between rent and tenant's capacity to pay, but achieve a system of "average justice" without the need for complicated and continually shifting bookkeeping. The relation of the differential rents to actual differences in standard of accommodation could only be a rough and partial one, but it helps to secure acceptance of the schedule, and is not far removed from the situation in housing in the ordinary private market where rents are fixed often in comparatively arbitrary fashion. Another substantial administrative virtue is that the revenue capacity of the housing developments as a whole is known from the beginning, and fixed more

certainly for the future. Finally, on this basis, annual notification of income should be a sufficient and workable procedure, and a reasonable period of grace could be established for families whose income rises, above the prescribed level, with fair certainty of continuance.

The previous method followed in fixing rents was to make local surveys of prevailing rents in the district, of rentals accepted for relief budgets, and of the characteristics of tenants (numbers, size of family, etc.) in slum or blighted areas. The rates for the new housing projects were then usually set somewhat lower than those which had been paid by the tenants in their former dwellings. For guidance in local districts, this kind of preliminary survey is still available. In one form, particularly directed to the discovery of overcrowded and sub-standard properties, it is a mandatory feature of local government in Great Britain and is also written in great detail into current New Zealand legislation. A recent study of the subject of low rentals[1] approves the system of graded rents, but counsels that there is need for local variation and experimental developments. Two schedules from this report are reproduced in this chapter for their value as examples, not as suggesting rates which could be applied uniformly throughout Canada. Obviously, local variations in income being what they are, the proportions of the schedules are more important than the actual amounts: the latter can be calculated appropriately. The consideration of differences in size of family and requirements in bedroom accommodation, however, are of universal application in designing the dwelling-groups. What will be needed is a workable guide to the proportion of units which should be included for the larger families.

SCHEDULE A.—SAMPLE OF RENT SCALE

(Low-Rental Project, Philadelphia, 1943)

Size of Unit	Income grades			
	$400–$525 (D)	$526–$700 (C)	$701–$900 (B)	$901–$1200 (A)
1 bedroom	$11.25	$14.00	$17.50	$22.00
2 bedrooms	11.75	14.75	18.50	23.25
3 bedrooms	12.25	15.50	19.50	24.50
4 bedrooms	12.75	16.25	20.50	25.75

Amounts rounded to nearest 25 cents.

[1] *Graded versus Proportional Rents in Public Housing.* Citizen's Housing Council of New York, 470 Fourth Avenue, New York. 1941.

SCHEDULE B.—SAMPLE OF GRADED UPPER LIMITS APPLIED AT TIME OF ADMISSION

(Low-Rental Project, Philadelphia, 1943)

Family Composition	Income grades			
	(D)	(C)	(B)	(A)
No minor dependents	$475	$625	$775	$1050
1 or 2 minor dependents	$525	$700	$900	$1200
3 or more minor dependents	$600	$800	$1025	$1375

Source: *Graded versus Proportional Rents in Public Housing*, Citizens' Housing Council of New York, 1941. p. 45. Rent-income ratios (at top of grade) range from 28·9 per cent ($475 income) to 21·3 per cent ($1375 income) according to this schedule. Amounts rounded to nearest $25.

SCHEDULE C.—TABLE OF FAMILY SLEEPING REQUIREMENTS ACCORDING TO SIZE AND COMPOSITION OF FAMILY

(American Public Health Association)

No. of Persons	Components*	Sleeping rooms needed
1	Single person	1
2	Husband and wife; any two persons of same sex, regardless of age	1
2	Two persons of opposite sex; father and daughter, mother and son, etc	2
3	Either parent and two children under 8 years	2
3	Husband and wife, one child over 2 years or a relative	2
3	Either parent, one child, and a relative	2 or 3**
4	Husband and wife, and two children of the same sex	2
4	Husband and wife, one child over 2 years, and a relative	2 or 3**
4	Husband and wife, two children under 8 years	2
4	Husband and wife, two children of opposite sex over 8 years	3
4	Either parent, three children	2 or 3**
5	Husband and wife, two children same sex, relative	3
5	Husband and wife, two children, same sex, one opposite sex	3
5	Husband and wife, three children same sex	3
5	Either parent, three children, relative	3 or 4**
6	Husband and wife, two boys and two girls	3
6	Husband and wife, three children same sex, one opposite sex	4
6	Either parent, four children, relative	4 or 5**

Source: *Graded versus Proportional Rents in Public Housing*, Citizens' Housing Council of New York, 1941. p. 37.

* Not more than 2 persons per room, (children under 2 years of age not counted); separationof sexes after 8 years of age.

** Depending upon sex division.

CHAPTER 10

FARM HOUSING

The subject of farm housing might have been approached in this report in conformity with the method adopted for urban housing, namely, by consideration first of dimensions and needs and then of the program requirements to meet these needs. Farm housing, however, has not received attention as a special field of housing to the extent it deserves, and it may help to offset this deficiency by bringing together all material relating to the topic in one section. The comparative paucity of statistical material is also favourable to this plan.

The Population Concerned

The farm population of Canada is not as well defined as might be supposed, considering its importance. It is safe to say that it is over three millions in numbers; but beyod this, much depends upon the definition which is applied, whether in terms of area or whether in terms of the community concerned or of the vocation of agriculture as the deciding factor. Using the figures of the last census, the actual number of persons living on farms was 3,158,000. The population living within areas which are predominantly farming areas was 3,276,000. So far as housing policy for farmers is concerned these differences are perhaps not of major importance, for two reasons. One is that the dimensions are large enough—as will be further demonstrated by other figures of housing conditions —to demand a large-scale and adaptable program, fitting into special areas or circumstances in the various parts of the country where these obtain. The other is that the farm population itself, however defined, is subject to change. It has declined seriously during the war years. Its future will depend on a great many factors, including domestic agricultural programs and international policy. But at least in some degree the return of considerable numbers of members of farm families must be anticipated at the time of demobilization. It is not to be assumed that agricultural conditions, and their attendant housing requirements, are the same in all parts of the country; but the fact of first importance is that farm housing (including in this term all other types of rural housing), is a matter which concerns approximately one-third of the Dominion population.

The differences between the definitions of farm population may be illustrated by a few comments, but the main statistical points are elaborated in Appendix G. The population which is classified as rural non-farm are those who reside in non-incorporated communities of many different kinds. As has been pointed out elsewhere, an important separation must be made for the purposes of housing policy, of the non-incorporated communities which are immediately adjacent to large cities and in practice are predominantly urban in character. The needs of these communities clearly should be amendable to the provisions of ordinary urban housing legislation. The remainder are small hamlets, villages and other types of settlements which may occasionally be somewhat similar to farm units. These should be capable of being taken care of by urban housing legislation, though doubtless some adaptations of its administration might be desirable to meet their particular conditions. It seems altogether probable that nothing short of a specific survey of these areas (comprising a population of slightly less than 400,000), would determine what those requirements are.[1] On the other hand, the *farm area population* excludes all persons living in urban communities, even if they happen to be on farms within the confines of a city

[1] Reference is made to estimated housing needs for this special section of the country in Chapter 6 (Postwar Housing Needs); and further statistical material is given in the Appendix.

(of which there are a few);[1] while it includes a number of persons (principally fishermen, loggers and miners) who are not full-time farmers, although they live in regions which are predominantly of farm character. In three provinces only, New Brunswick, Nova Scotia and British Columbia where the dove-tailing of extractive pursuits is common and a number of fishermen and loggers own tracts of land, the number recorded as *farm population,* i.e. actually living on farms, is greater than the number recorded as the farm area population. Elsewhere, the farm area population is the greater, and for most purposes is the most desirable figure for housing measurements. It is important to note, however, that the distinction between farm population and farm area population was not made in the census, previous to 1941, the former being the only tabulation made.

The precise number of housing units which has to be considered is again subject to quite a range of divergence. As recorded in 1941, there are 733,000 occupied farms in Canada (representing a small increase of about 4,000 over 1931); the number of dwellings in farm areas—730,000—is sufficiently close for this figure to be used as the principal base.[2] A considerable number of farms, however, are returned as vacant: the measurement concerned with close detail would need to examine how many of these are in flourishing and moderately good farming districts, and how many in pioneer or remote areas.[3] What is of immediate importance is first, that only 659,000 *families* are recorded as making up the farm area population at the time of the last census; and second, that 51,000 of these families were lodging families, i.e. were sharing their dwellings with other families or with non-family groups. The explanation of the first difference is that there are a substantial number of households in farm areas which do not constitute a family in the restricted sense of the census definition.[4] The second fact is evidence of at least some overcrowding in the sense that a number of families have to share their housing accommodation with other families or non-family household groups (e.g. a widowed farmer and his housekeeper and a farm labourer with his family).

It is frequently assumed that all or most farms are owned, and, therefore, that legislation designed to improve farm housing should be of the home ownership type. It may well be that the attainment of ownership is much more clearly appropriate in the case of the farmer or farm labourer than in the case of the industrial worker. But it must be noted that no fewer than 133,000 Canadian farm dwellings are rented properties. Like the figures for wage-paid farm labourers in Canada, these represent a comparatively small proportion of the total; but they are sizeable enough in the aggregate, and it has become clear that they demand a special branch of housing legislation or provisions. There is, of course, no necessary connection between the number of rented farm houses and the number of paid labourers. The ascertainable facts (based on a ten per cent census sample) with regard to the latter are that there were 179,000 in 1941, of whom about 100,000 were married. There are no available tabulations which would indicate separately the housing conditions of this particular class. In practice, the policy considerations concerned should probably not be confined to wage-paid farm hands as such. More than 250,000 of the farm working-force in 1941 were the unpaid sons or other relatives of farmers.

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[1] There are-still about seven thousand farms located in urban areas (the census definition of "urban" being here used); the figure was over ten thousand in 1931.

[2] About 570,000 dwellings were owned, 133,000 were rented, and 27,000 were vacant.

[3] Information bearing on this point may be in possession of th eadministrators of the Veterans' Land Act, 1942; some further information may also be obtained as part of the special survey of agricultural settlement areas throughout Canada which is being made as one of the special studies for the Committee on Reconstruction.

[4] According to the census, a family consists of husband and wife (with or without children) or a parent with an unmarried child (or children) living together in the same housekeeping community.

It is reasonable to assume that some proportion of these might need housing units of their own; or, for example, might be willing to marry earlier if accommodation were more easily obtained.

Even if there were no question of the conditions of present farm housing being unsatisfactory, so that replacement and repairs are called for, it would almost certainly be unwise to assume that figures such as have been referred to are an adequate basis from which calculations should be made. The drain of working personnel from the farm areas of the Dominion has been extensive and in some areas extreme. It is true that during the depression years migration back to the farm from urban areas created surpluses in many regions. But the downward trend since the war must be regarded as abnormal. The gainfully employed in agriculture in 1941 total 1,107,000, of whom 636,000 were operating farmers; and it is to these figures that the others outlined above are related. According to counts of the total working population made by the Department of Labour recently, however, the total agricultural working force which in August 1939 was 1,450,000, was by January 1943 down to 1,020,000. It must be remembered that parallel with this exodus from the farm there has been an enormous development of industrialization and urban growth, which has attracted part of the quota from the farm districts. It will not be in accord with accepted post-war objectives or the economics of a full employment policy to assume that the return to agricultural areas will be made as a phenomenon of depression. A reconstruction policy for agriculture must include serious attention to living conditions, of which housing accommodation is a special part, if agricultural life and farming as a vocation is to maintain its attractiveness: still more clearly is this true if its attractiveness is to be enhanced.

Housing Conditions and Standards

It is understandable that a farm should be valued as a whole; perhaps even that the housing unit included in it should not be regarded as the most important element. Because the separation of the house from the rest of the farm property is not common, however, it is not widely realized how low is the value of the houses erected on most Canadian farms. The average value *of all farm buildings* (as compiled by the Census of Agriculture Branch of the Dominion Bureau of Statistics), was $1,481. This represented a decline from an average of $1,843 in 1931; and even in 1921 when some of the effects of the inflationary post-war boom were still prevalent, the average value was $1,943. Obviously, the figure for the *dwelling* of the farm family as such, is smaller than all of these figures: the average for Canada in 1941 (obtained from the results of the sample Housing Census, 1941) was actually $1,095. Building costs in farm areas are invariably lower than the cities, of course, and frequently a good deal of labour supplied by the farmer himself may not be charged to the account. None the less, the values reflect in some definite measure, low standards, poor structures or facilities, or deterioration, or something of all of them. The declining averages of the last twenty years also reflect in some degree a low rate of repair and general up-keep over the period. The relation of the value of residential units to the rest of the farm is shown in Table 49.

Considerable regional variations must necessarily be taken into account. The value placed on farmhouses in Ontario yielded an average of $1,421; in British Columbia, Quebec and Prince Edward Island, they were somewhat over the $1,000; in New Brunswick, only $861. One of the clearest reasons for these values is undoubtedly that most farm homes are built of wood. The principal exception is Ontario, where as many as 41 per cent of farm dwellings are of other materials, brick being in especial favour. In Quebec the traditional stone houses do not account for anything like the proportion of the total that is sometimes suggested: 89·8 per cent of all farm dwellings are built of wooden

materials. The Dominion average is 83·3 per cent; and the proportions of wooden dwellings in the Maritime Provinces and in the Prairie Provinces are 98·4 per cent and 90·3 per cent respectively. In British Columbia, the percentage is 94·2.

TABLE 49.—VALUE OF FARM PROPERTY, CLASSIFIED ACCORDING TO TYPE, CANADA, 1901-1941

Type of Farm Property	1901		1911		1921		1931		1941	
	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent
	$		$		$		$		$	
Land	1,971	56·4	3,693	59·5	5,163	56·0	3,720	51·6	2,631	45·7
Buildings	775	22·2	1,207	19·4	1,943	21·1	1,843	25·6	1,481	25·7
Implements and Machinery	213	6·1	377	6·1	936	10·1	893	12·4	818	14·2
Livestock	538	15·3	925	15·0	1,176	12·8	746	10·4	831	14·4
Total	3,497	100·0	6,202	100·0	9,218	100·0	7,202	100·0	5,761	100·0

Source: Compiled from Table 5, Volume VIII, p. 6, Census 1931. Figures for 1941 by courtesy of Agricultural Census Branch, Dominion Bureau of Statistics.

Assuming equally sound construction and equal care devoted to houses built of wood and of other materials, the wooden houses will deteriorate much more quickly than the latter. As it happens, soundness of construction and extent of upkeep vary in different regions, as the average figures for provinces illustrate. The farm properties in Nova Scotia and Prince Edward Island are in better repair than the average condition which prevails in Ontario (although it is equally true that similar divergencies can be found between some of the best and some of the poorest parts of the latter province). It is evident, however, from figures such as are listed in Table 50, that the material of construction is not the sole determinant of present maintenance requirements. In Prince Edward Island and Nova Scotia where 99 per cent of all farm dwellings are built of lumber, the proportion of houses in need of repairs is the lowest of any of the provinces (about 29 per cent). In Ontario, although only 59 per cent of farmhouses are built of wood, more than 31 per cent were recorded two years ago as in need of external repairs.

Needs of external repairs were specially recorded in the last housing census. The definitions applied have been explained elsewhere (Chapter 4). It is of particular importance, when farm housing is under consideration, to remember that this criterion gives no indication of needs of internal repair, the improvement of plumbing and other facilities, and all maintenance needs which do not involve actual repairs. It would not be unreasonable to suggest, for example, that very few farm dwellings cannot profit from a new coat of paint. In 1941, the proportion of the total of 730,000 farm dwellings which were discernibly in need of external repairs was 277,000 or nearly 40 per cent of the whole.

The principal figures for each province are enumerated in the accompanying tables, which show as well as the construction material, the principal indices of facilities and need of repair. In no province is the need of external repair less than 28 per cent of the total of all farmhouses. It is notably high in New Brunswick and Saskatchewan; and in Quebec and Ontario, the two largest provinces, a total of 117,000 dwellings exist where the need of repairs is clearly indicated, and 300,000 (out of 344,000) have no modern bathing facilities. Throughout Canada as a whole, it is remarkable that only 20 per cent of all farmhouses have electrical facilities.[1] Census information reveals particularly unsatisfactory standards and conditions in the Prairie Provinces, and this information has been supplemented by some sample surveys carried out locally.

[1] For a discussion of the implications of farm electrification programs, see Appendix 8

TABLE 50.—FARM DWELLINGS CLASSIFIED ACCORDING TO NEED OF EXTERNAL REPAIRS AND TYPE OF EXTERIOR MATERIAL, FOR THE PROVINCES, 1941

Province	Total farm[1] dwellings	In need of external repairs		Type of exterior material					
				Brick		Wood		Other	
		Number [2]	Per cent	Number [2]	Per cent	Number [2]	Per cent	Number [2]	Per cent
Prince Edward Island	14,297	3,900	28·7	100	0·6	13,500	98·7	100	0·7
Nova Scotia	32,510	8,800	28·6	200	0·6	30,400	99·0	100	0·4
New Brunswick	29,891	13,200	46·6	200	0·7	27,700	97·7	500	1·6
Quebec	156,623	60,300	40·2	7,100	4·7	134,700	89·8	8·300	5·5
Ontario	186,954	56,400	31·5	49,400	27·6	105,600	59·0	24,000	13·4
Manitoba	57,882	25,100	44·1	2,100	3·6	51,400	90·1	3,600	6·3
Saskatchewan	127,239	58,000	47·2	1,700	1·4	111,100	90·5	9,900	8·1
Alberta	97,937	43,100	45·1	1,000	1·0	86,800	90·7	7,900	8·3
British Columbia	26,411	8,400	32·8	300	1·2	24,000	94·2	1,200	4·6
Canada	729,744	277,200	39·4	62,100	8·8	585,200	83·3	55,600	7·9

Source: Compiled by applying to the total number of farm dwellings, as given in Bulletin No. HF-1 of the Census Branch of the Dominion Bureau of Statistics, percentage distributions, on the basis of a ten-per-cent sample, revised data by courtesy of Housing Census Branch, Dominion Bureau of Statistics. 1941.

(1) Includes vacant dwellings.
(2) Estimated to nearest hundred.

TABLE 51.—FARM DWELLINGS CLASSIFIED ACCORDING TO USE OF ELECTRICITY AND BATHING AND TOILET FACILITIES, FOR THE PROVINCES, 1941

Province	Total farm[1] dwellings	With electricity		Without electricity[2]	No or no exclusive, use of			
					Bathing facilities		Flush toilet	
		Number [2]	Per cent		Number [2]	Per cent	Number [2]	Per cent
Prince Edward Island	14,297	800	6·2	12,800	12,800	93·8	12,800	93·9
Nova Scotia	32,510	8,000	26·2	22,600	27,700	90·4	28,000	91·3
New Brunswick	29,891	5,300	18·6	23,100	26,400	93·0	26,100	92·0
Quebec	156,623	35,400	23·6	114,600	139,800	93·2	125,300	83·5
Ontario	186,954	66,800	37·3	112,200	159,800	89·3	162,000	90·5
Manitoba	57,882	4,200	7·3	52,900	55,200	96·8	56,300	98·8
Saskatchewan	127,239	6,000	4·9	116,700	118,000	96·1	121,500	99·0
Alberta	97,937	5,700	6·0	89,900	91,500	95·7	93,400	97·6
British Columbia	26,411	9,200	36·0	16,300	19,500	76·5	20,300	79·5
Canada	729,744	141,400	20·1	561,100	650,700	92·6	645,700	91·9

Source: Compiled by applying to the total number of farm dwellings, as given in Bulletin No. HF-1 of the Census Branch of the Dominion Bureau of Statistics, percentage distributions, on the basis of a ten-per-cent sample, revised data by courtesy of Housing Census Branch, Dominion Bureau of Statistics. 1941.

(1) Includes vacant dwellings.
(2) Estimated to nearest hundred.

Special conditions which have contributed to the above state of affairs are not only the poverty and deterioration during the drought years, but also the comparatively flimsy structure of many of the homesteads built when the grass lands were first taken up. Very few farmhouses in the Prairie Provinces have foundations; and insulation of walls, floors and roofs is practically unknown.

A survey conducted during 1939-1942 embracing 2711 farm homes in nineteen representative districts in Saskatchewan rated 37·5 per cent of the homes as in poor condition, 56·5 per cent as fair, and only 6 per cent as in

good condition. Many of the homes considered as fair were in need of repairs. The cost of necessary repairs was estimated as being between 10 and 20 per cent of the present value of the farm homes.[1]

A similar situation was revealed by a farm housing study undertaken in the summer of 1943 in the Cory-Asquith-Langham area in central Saskatchewan, where 90 per cent of all farmers claimed that their houses were in need of repairs, although only 47 per cent of all farm homes had been classified as poor in the census of 1941. Another survey of farm housing conditions in Alberta covered 3206 farm dwellings in seven representative districts. This rated 41·1 per cent of all the structures as poor, 46 per cent as fair, and only 12·9 per cent as in good condition.[2]

Comments on farm housing conditions have become increasingly frequent. In a recent article it was claimed that if one thousand typical homes from the farms and small towns of western Canada were assembled on an urban street, they would in all probability constitute a community which in most physical respects would be nothing more than a slum area.[3]

The Scott Commission in Great Britain goes further and suggests that even where the conditions of farm houses are not so bad as to be equivalent to the slums of the cities, so many rural houses lack the material improvements which are now becoming general in the towns that the obvious inequalities are reinforcing the migration of young people to urban areas, and preventing their willingness to consider agricultural careers.[4] The implications for Canada are not merely that we have an urgent backlog of improvement and rebuilding; but that domestic facilities and other community amenities must be considered as well as the simple housing structures if living standards of any attractiveness are to be assured.

Principles of Farm Housing

It is evident from the above figures that a major program will be required to bring up the housing standards of the farm population to a reasonable level, and that housing policy must be developed in more than one direction if it is to take care of this section of the Canadian people. Housing for the agricultural population, however, raises special problems, and a brief review of some of these will be desirable before considering further the dimensions and legislative requirements of policy.

1. Several quite different classes or groups require separate consideration. Facilities for repair and improvement will probably be applicable over the widest range. The number of farmers who will want to build new homes, on the other hand, will probably be comparatively limited; and should be further divided into (*a*) those whose incomes are sufficient to enable them to enter on the obligations necessary with not more than the assistance provided for urban owner-builders; and (*b*) farmers (including some tenant farmers) whose incomes are insufficient for them to undertake any building at all without special measures of assistance. The provision of small houses or cottages for agricultural labourers is a third section of policy requiring its own techniques. And finally, there are varied facilities of importance in the rural situation which are not strictly housing, but which call for somewhat comparable legislation to home improvement or home acquisition measures. A familiar and important example is the installation of rural electrification facilities, and the securance of

[1] R. A. Stutt, "Some Observations on Farm Housing in Representative Areas of Saskatchewan," *The Economic Annalist*, Ottawa, November 1943, Vol. XII, No. 4, pp. 69-73.

[2] Sample farm survey conducted by the Economic Division, Dominion Department of Agriculture, 1939-1941.

[3] E. W. Thrift, "Prairie Slums Unlimited," *Journal of the Royal Architectural Institute of Canada*, Toronto, September 1943, Vol. 20, No. 9, p. 154.

[4] Ministry of Works and Planning, *Report of the Committee on Land Utilization in Rural Areas* (Scott Report), p. 48. London 1942. (Cmd. 6378). (For a summary of the Report, see Appendix J).

equipment necessary to use electric power; an equally important example of a totally different kind is the rural community hall, which has become more and more the subject of approval for the raising of rural community living standards.

2. While the various types of housing or house improvement required may be provided for by an extension of legislation designed for urban application, it is doubtful if this would be a satisfactory procedure to ensure that wide advantage be taken of the legislation. In almost every field, modifications of the financial scheme to make them more appropriate for the budgetary situation of the farmer would be desirable. It is recommended either that a separate consolidated schedule covering all types of housing legislation for farm areas be written into the new National Housing Act; or else that within each Part, separate specifications for farm clientele be drawn up. This would necessarily entail a workable definition of a farmer and other residents in the principal farm areas to distinguish this group from other recipients of assistance under the Act, but this should not be beyond the capacity of regulations.

A special factor which must always be considered in farm housing, and probably rural housing as well, is the availability of labour from the farm family or the local district which may be contributed economically to construction or improvement undertakings. This should be considered not only in the financial set-up, but in regard to construction or design. Prefabrication techniques are particularly adaptable. On the other hand, it may be necessary to provide for the movement of groups of craftsmen from one place to another, or for the furnishing of key men who may not be available in a rural district. If arrangements can be made to use farm labour for construction and repair purposes in the off seasons, this will obviously be more adaptable to the farm economy.

3. It is highly important to distinguish between housing activities and needs, and aspects of farming which are primarily concerned with agricultural production and the farm as a business unit. Thus the building of a barn should be regarded as the proper subject of agricultural credit facilities, but not as coming within the scope of a Housing Act. It might prove satisfactory to extend the application of legislation to all farm structures, provided that only improvements and not new building was involved. This would depend, however, upon what is done with regard to other credit facilities for agriculture, and co-ordination on this point must obviously be established.[1]

4. On the other hand, it must be equally clear that a rural housing policy by itself cannot be expected to solve farm problems which are primarily agricultural in nature. A sound farm economy as a whole depends on a range of other policies, such as those affecting land utilization, production credit, marketing arrangements, trade and price policies; and also farm labour policy, and agricultural population trends generally.

The distinction has already been drawn between farmers able to undertake construction on the basis of a substantial contribution from their own resources, and others who may be in need but (like the low-income groups in the cities) are completely unable to remedy their housing situation without special subsidies and building arrangements. It must be recognized that a considerable proportion of the latter group of farmers are on a marginal or subsistence basis, whose economic difficulties may be the product of unsuitable land, soil erosion, drought, lack of knowledge of good farming methods, or poor management. If the areas in which they are located are fundamentally unsuited for prosperous agriculture, it would be no remedy and it would probably be waste of money, to build better housing on these properties. This is no argument for excluding such areas from a national housing policy, for the housing needs of families in these districts

[1] Some recommendations on this subject have been made in the report of the Subcommittee on Agricultural Policy.

may be among the greatest in the country. The proper corollary of policy for dealing with rural slums is that measures of agricultural rehabilitation must be co-ordinated with measures for housing construction or improvement.

The wisest course would seem to be the setting up either of a special rural division of the National Housing Administration, or at least a Farm Housing Advisory Committee which would include representatives from the Department of Agriculture. This procedure would not be incompatible with the existence of a rural Housing Committee within the Department of Agriculture, which might give special attention to housing and other farm facilities in their broader relations to agricultural efficiency.

5. Special attention must be given to the subject of the design of farm housing, both for ownership and for tenancy. There has been far too little attention to this in the past on the part of builders and architects, and many mistakes in rural construction have been made because patterns and methods have been taken over with little or no thought from urban models.

Recommendations have been made elsewhere on the need for the preparation of a variety of desirable designs, and also for research in materials, techniques and building organization. They should be interpreted throughout as meaning that specialized attention should be given to rural and farm applications.

In farm housing, one of the important facts of which account must be taken is the extent to which a farm home is part of the farm productive unit, and requires entirely different planning for storage needs, canning facilities, the preparation of animal feeds and much larger-scale kitchen and laundry facilities. Another aspect of the subject is the necessity of catering for different regions, with differences of climate and available building materials. Design and costs must necessarily vary according as they are appropriate to the Fraser Valley, the Prairies, the Maritimes, Northern Ontario, and so forth. The location of the house on the farm itself might well be the subject of some research, and its proper relation to water supplies, farm buildings, septic tanks, etc., should be considered. In general, farm housing should be studied as a subject with its own requirements and problems. Co-operation should be sought from departments of agriculture; from architects familiar with or willing to study rural conditions; and—by no means least in importance—means should be found of consulting the views of farmers and farm housewives on the subject.

Dimensions of Postwar Needs

In making an estimate of the volume of new building and of repair and improvement work, in farm areas, the first requirement is to decide the proportion of farm dwellings which are beyond repair and in need of replacement. In the absence of more detailed and more extensive surveys than have been made, it is not possible to determine this exactly; and some of the considerations enumerated with regard to the definition of urban slum areas (Chapter 4) are also relevant here. If they were all available, the criteria which should determine whether a farmhouse should be torn down are structural adequacy, an unsatisfactory state of maintenance, and lack of the primary sanitary facilities to an extent likely to endanger the health of the occupants. Some of these specific surveys (in Saskatchewan and Alberta) which have been referred to base their rating as good, fair or poor on the combination of these factors. To obtain a first approximation on a national scale, however, it is only possible to piece together these findings with the other less co-ordinated indications of the census.

If the two surveys on farm housing in Saskatchewan and Alberta are representative, they indicate that something like 40 per cent of the farm dwellings are in poor condition. (The proportions rated as poor were 37·5 and 41·1 per cent respectively; and 56·5 per cent and 46 per cent were rated as fair.) Although this particular degree of detail is not available for Manitoba,

the many complaints of poor farm housing conditions in this province support the assumption that accommodation levels are not much better there than in the other two Prairie Provinces.[1] If a high or even moderate standard were applied, it might be quite arguable that all such houses should be replaced. Assuming, however, that substantial improvements can be effected through repairs, and aimed at only a minimum objective, the number of farm dwellings which should be rebuilt may be set at one-half of the farm dwellings rated as poor. This proposal appears to be in accord with the analysis of Saskatchewan farm housing information made by one qualified observer recently.[2]

On this basis, a comprehensive farm housing program for the three Prairie Provinces should set out to undertake the rebuilding of about 20 per cent of all the farm dwellings. Applied to the total number of 283,000 units, this would be an undertaking of about 56,000 units for the three Prairie Provinces alone. In most other provinces, it is probably correct to assume that the deterioration of farm dwellings has, for a number of reasons, gone less far than in the Prairies. Decline in farm incomes was general throughout Canada in the lean years of the 'thirties, but was nowhere quite so drastic and overwhelming as in the wheat areas. The effect of somewhat better construction in most other areas has also to be taken into account. It is probably conservative to assume that the needs in other provinces are only one-half as great as in the Prairies. Applying the proportion of 10 per cent to dwellings in the rest of the farm areas yields a figure of about 44,000; and accordingly, for the country as a whole a minimum replacement program of about 100,000 units.

Considering that there has been little or no provision in the past specially designed to grapple with farm housing, and also that these figures make no assumption of an increased population beyond the level of 1941, they must be regarded as modest. A building program of 100,000 units would actually not constitute more than 14 per cent of the total number of farm dwellings in Canada, and the number is slightly more than one-third of all the dwellings recorded by the housing census as in need of external repairs.[3]

The import of the above figures is that some such program must be undertaken to arrest continuing deterioration of the existing farm housing supply. Obviously, the longer the period over which farmers are unable to rebuild their homes, the more difficult and costly will be a farm housing rehabilitation program, and the greater the number for which rehabilitation alone will not be sufficient. In any case, however, the figures take no account of existing pressure on accommodation; and also other needs for new types of farm housing which have been little explored in this country so far.

It is not feasible to compute the amount of overcrowding in farm homes in the same way as this is done on the basis of urban statistics. Generally speaking, though there are exceptions, the rooms in farm dwellings are more spacious than those in city homes, and may, therefore, provide adequate living space at a level lower than the standard ratio of one room per person. In some regions, more particularly the longer settled parts of the country, the number of rooms within the farm dwelling, or added to it in the course of time, is comparatively large. The average number of rooms per dwelling in Prince Edward Island is 7·3, 7·0 in Ontario and 6·2 in Quebec. Throughout the West, however, farm houses are consistently smaller, the average for Alberta, for instance, being 3·1. What is even more important is that almost everywhere

[1] A survey of rural housing conditions is being undertaken by the provincial government of Manitoba.

[2] *Some Observations on Farm Housing in Representative Areas in Saskatchewan*. op. cit. p. 73.

[3] It is of interest to note that computation of minimum replacement, based on physical standards alone, made for urban areas (175,000 units) bears a similar proportion to the total (i.e. 12·2 per cent of 1,437,000 dwellings).

farm families are larger than city families. No concerted evidence has been brought together, but various reports and articles have spoken of substantial overcrowding in farm homes at present.[1]

More information is badly needed on the adequacy with which farm labourers, both permanent and transient, are housed in the various areas of Canada where they are necessary in agriculture. And the same is true of the number of young men who would be able or willing to start a farm of their own, or who would work as labourers for a period prior to acquiring a farm, if they could marry and live in a house of their own. The information from the 1941 census, that there were about 51,000 families sharing dwellings with other families in farm areas, certainly does not measure more than a part of this situation. It is not only questionable whether the existing farm housing supply is enough to absorb any great number of people taking up farms after the war. A general knowledge of farming districts across the country is enough to warrant the view that a supply of housing units built to specifications appropriate for farm workers will be needed if the working force in agriculture can be enlarged from its present chronically undermanned condition, and if agriculture in general is to develop the possibilities of more mechanized and intensive types of production.

(*a*) *Deficit of New Farm Homes.* A comprehensive farm housing program designed to provide new dwellings after the war will thus have to begin by working on a minimum backlog of 125,000 units (100,000 farm dwellings in need of replacement and 25,000 new dwellings required to house half the number of lodging families).[2] Following the pattern proposed for the urban housing program, such a farm housing scheme would be spread over a lengthy period, say twenty years (which latter would involve an average of 6,250 new dwellings per year). However, the farm housing program should be flexible as far as possible, the number of new farmhouses built annually being larger or smaller as the strategy of post-war economic policy required.

(*b*) *Future Replacements.* This may appear to exhaust considerations of the matter. But it is an important fact that Canadian calculations have paid little or no attention to allowances for orderly withdrawal and replacement of farm dwellings which become obsolete as time goes on. If, in the future, Canadian agriculture must be more and more concerned with the conservation and development of farms within the best and already-settled areas, rather than proceeding on the easy assumption that lands and properties can be forsaken for new territories elsewhere, a proper replacement rate will acquire increasing importance. If no arrangements for replacement (after a reasonable average life-term) were made, even if the whole of the backlog of construction estimated above were provided in the course of twenty years, another backlog of considerable dimensions would have accumulated by the end of such a period.

The question is what life expectancy is it reasonable to assume for the dwellings, belonging to the existing stock, and whether repaired or not, which will remain apart altogether from those rebuilt or replaced by new ones? Even if it is assumed that the 630,000 or so farmhouses concerned (assuming the replacement of 100,000 sub-standard units) are good for another 100 years of use,[3] it would be prudent to deal with this part of the supply by replacing one per cent, or 6,300 units, annually rather than allowing them to accumulate.

[1] See, for example, *Prairie Slums Unlimited. op. cit,* p. 154.

[2] The objections to the use of the term "backlog" are explained in Chapter 6. Here the term may be taken as more flexible as referring to the number of units which, in almost any circumstances, must be replaced in addition to dwellings required to house lodging families.

[3] Much less than a hundred years should be taken as the life expectancy of many farmhouses (especially in the light of the fact that the great majority are of wooden construction), even though there are some special examples of much older farmhouses still in occupation.

It is possible, of course, to accelerate or retard, within a few years, construction undertaken on this score as it is for obsolescent or sub-standard housing. Indeed it will not necessarily be possible to distinguish between a "backlog" unit and a "current-replacement" unit. It is the proper calculation of the dimensions of a comprehensive program for the future that matters.

If this element is to be taken into the computation on a minimum basis, *i.e.*, allowing only for half of the requirements for the immediate program for reasons explained in Chapter 6, the average number of new dwellings needing to be constructed during the next two decades should be not 6,250 per year, but around 9,400 annually (6,250 plus 3,150). The actual number built probably should vary between 5,000 and 15,000 per year depending on the contribution which a farm housing program could be expected to make to the general policy aiming at full employment after the war.

(c) *Volume of Expenditure.* Costs per unit for new farm dwellings are likely to vary between $1,000 and $2,500, with an average in the neighbourhood of $1,500.[1] Obviously, the cost of new farm homes may vary considerably with differences in the facilities provided to enable farmers to buy the required materials cheaply and with the degree of work done on the house by the farmer, either alone or with help. However, on the basis of an average cost per dwelling of $1,500, a farm housing program of 125,000 units would involve an expenditure of $188 millions. Such an expenditure is not beyond the means of the Canadian economy, in view of the importance of maintaining an agricultural sector in the future, and especially since the suggested farm housing program would be carried out over a lengthy period. An annual program varying between 5,000 and 15,000 units, as suggested above, would involve only an outlay of $7·5 to $22·5 millions per year.

Repair and Improvement Programs

The data of the last census showed that about 288,000 dwellings in farm areas were in need of external repairs. If this criterion alone is accepted, and the minimum number in need of replacement put at 100,000, something like 188,000 dwellings remain as the basis for a repair and improvement program applied particularly to the farm areas. Actually, the number of farm dwellings which could profit from an improvement program is very much greater than this figure suggests. Apart altogether from the possibilities of such simple though effective improvements as repainting, these figures take no account of farm buildings other than the residential unit itself.

It may be worth while, however, to gain a first-approximation view of the possible volume of a farm housing improvement program. Evidence assembled in farm housing surveys, and also the experience of the Home Improvement Plan so far as it was utilized by farmers support a figure of a little over $300 as the average cost of repairs and improvements. On this basis a farm program covering the number of dwellings suggested above would involve an expenditure of $56 millions. If, however, account is taken of the many smaller repairs (external and internal) for the remaining 442,000 dwellings not covered by the limited definition of external repairs, it is not inconceivable that the total expenditure needed to improve the total farm housing supply to any considerable degree, would exceed the hundred million dollar mark (expenditures for new farm dwellings being excluded). As indicated elsewhere, this is the kind of program that might specially be organized for the immediate post-war years or dove-

[1] Farmhouses constructed under the United States Farm Security Program during the fiscal year 1938-1939, involved an expenditure of less than $1,400 per unit for dwellings built in the south and less than $2,500 per unit for dwellings built in the north (see T.N.E.C., Monograph No. 8: *Toward More Housing,* Washington, 1941. P. 114).

tailed in with longer-range plans of rebuilding. It seems incontrovertible that this volume of expenditure would only be forthcoming if very substantial contributions towards the total amount were made from governmental sources.

It is very necessary, in conclusion, to point out that a much wider range of improvement programs is called for if rural living standards are to be given the attention they deserve. Some special facilities such as plumbing equipment, electrical apparatus, and power installations are commented on elsewhere in this section. Other institutions, which belong to the sphere of rural community life as such rather than to farming in the limited sense, must be part of a national policy whether or not any of the elements come within the boundaries of a housing program. So far as the housing unit itself is concerned, however, every effort should be made to see that programs are not confined to the repairs of outstanding urgency or improvements of the barest utilitarian character. The farmhouse needs to be better adapted to its many functions, and to be the provider of a more livable environment. Farm improvement projects, in other words, ought to be organized not merely as means of facilitating the purchase of so many gallons of paint or feet of lumber, but with encouragement and assistance in the possibilities of beautification, the development of gardens and similar features.

Legislative Recommendations

It has already been proposed that all clauses relating to farm housing should be brought together in a special section of the revised National Housing Act. The definition of a farmer for the purposes of these clauses should probably hinge upon the extent to which the agricultural operator derives his principal living from the land, since it would be desirable to reserve the various privileges made available to *bona fide* farmers. Exception should be made, however, for fishermen and lumbermen in such areas as Nova Scotia, New Brunswick, or the Gaspe coast, who are also part-time farmers, and to whom it would be reasonable and desirable to extend the same kind of assistance in house-building and improvement as is recommended in this chapter. Another method of ensuring this extension might be to specify areas or districts by administrative regulations,[1] in cases where no misapplication of the purposes of the Act would result, and housing conditions are clearly in need of improvement. In general, however, the onus of proof of occupation would presumably rest with the applicant.

1. *Farm Housing for Owner Occupancy*

In Part I (and for that matter, Part II) of the National Housing Act certain principles of financial assistance are established, which it must be supposed are intended to extend to farm housing, so far as technical conditions permit their applicability. Some difficulties have to be faced, however. The principal one concerns the feasibility of separating the farm house (and its land) from the rest of the farm and its structures, for mortgage and loan purposes. A farmer whose income is large enough to build a new house, whose farm is fully-owned and who is able to present satisfactory evidence of the separation of his housing property from the rest of his farm, would presumably be able to take full advantage of Part I of the National Housing Act on the same basis as an urban builder; but obviously such cases can hardly be taken as typical. If a mortgage already exists, the possibility of separating a section of the farm for the purpose of building a new house is even more remote, and such farms (i.e. with mortgages) comprise more than 40 per cent of the total in Canada.[2] For all farms other than tenant farms, however, assistance for home building would

[1] The considerations relating to the proper definition of "farm areas" for such a purpose are set out in Appendix G on Farm Population.

[2] Of the total farms enumerated in 1941 (732,715, including Yukon), 549,972 were owned, 4,113 were managed and 84,760 partly-owned and partly rented. The remaining 93,170 farms were occupied by full tenants. The number among those which had mortgages—265,282—constitute 36 per cent of the Canadian total, or 42 per cent of owned and partly-owned farms.

be available under the provisions of Home Improvement legislation, if the purposes of the loans were defined for farm application as including the addition of new housing units. The existence or absence of a mortgage on the farm in this case would be immaterial (provided that the quality of the farm, and current payments on the mortgage were not such as to impair the farmer's credit rating).

It is recommended that the Farm Improvement section of the revised Housing Act should extend to new housing units as well as repair, maintenance and improvement of existing dwelling accommodation; and also that means should be sought to render such loans as cheap as possible. The term of the loans will of course have to be longer than the five-year maximum permitted under the former Home Improvement Plan.

The most direct expedient to lower the cost for the farmer would be to subsidize the loans directly either on a capital basis or on an interest basis. By the first method, part of the capital sum would be furnished (by the Housing Administration) through the bank as intermediary. The second approach permitting housing loans for farmers to carry a rate of interest lower than that for urban applicants, could be made by retaining the same rate structure but paying a subsidy to the banks or lending institutions which would reduce the rate actually paid by the farmer. The risk factor could be covered either by an application of mortgage insurance, of which the government would assume the costs; or by an adaptation of the pooling system which has been operated for Part I loans under the National Housing Act in the past (See Chapter 8). The loans so far as the farmers are concerned would be unsecured loans, negotiated with the local bank or other lending institution to which his general credit standing will usually be known on the basis of past loans for crop production and working capital.

Besides the direct attack on financing costs, two modifications to the contracts organized for farmers have much to recommend them. One is that a cash down payment should be omitted altogether for farm residents, the whole payment being placed on the basis of instalments of a total loan. The second is that dates of payment should be related as closely as possible to crop seasons, and that a scheme should be worked out to adjust the annual instalments upwards or downwards according to the crop results for the year. This formula has now been applied in a number of instances of agricultural financing in the United States, and has proved successful.

The possibilities of utilizing labour of the farm family, and of organizing the supply of certain materials at specially low costs, should also be written into the regulations for farm residence building. The way in which this has contributed to the development and economies of co-operative housing in Nova Scotia is described in Appendix E.

A special method of subsidy that should be investigated, to facilitate its application to farm housing (though it need not be limited to this), is the grant of specialized physical goods such as electrical, plumbing, heating, and refrigeration equipment. These could be contributed to a farm housing project either at a rebate, or in return for the labour of installation; and such a subsidy is, of course, possible for either house construction or repair and improvement projects.

Finally, it is desirable that all possible technical assistance on matters of construction and design should be furnished to prospective farmhouse builders. It has been recommended elsewhere that a special study of farm housing construction and equipment should be made. This should include the consideration of prefabrication and mass-assembly devices (See Appendix K), and the conditions under which standardized sets of material or equipment could best be supplied for farm use. The Farm Housing division of the Housing Administration should be organized so as (*a*) to be equipped to conduct the necessary studies, (*b*) to furnish standard designs, advice on construction, etc., as well as financial procedure, and (*c*) assistance in securing prefabricated or other low-cost supplies.

2. *Housing for Farm Labourers*

Paid agricultural labour in Canada has never been more than a minority percentage of the total farm population. It is, however, highly important in some sections of the country and at some seasons of the year; requirements have been growing at a number of points, particularly as agriculture has become more extensive and industrialized; and the standards of skills required from farm labourers have also been increased. But there has never been any policy directly concerned with the provision of suitable housing facilities for this class.

It is necessary to emphasize its importance for the future on several grounds. First, farm labour has always been the least attractive and least well paid of all forms of wage-earning employment. "More information than is available would be necessary to determine positively whether the temporary farm hand is worse off than the casual worker in the city, or the year-round hired man worse off than the unskilled labourer employed by a factory or construction company. The farm hand who has to work long hours, eat rough food, sleep on a poor bed in an inadequate room or a barn, and enjoy few or no social contacts, might well feel certain about it provided he were not comparing it with life in a room-inghouse district or a slum. It is easy to forget also that the unskilled manual worker in the city is at present almost as untouched by welfare legislation as is the farm wage-earner. But, even allowing for differences in rural and urban costs of living, the wage levels which the latter can expect appear to be the lower. There are special features in the farm market which account for this; not least among them the fact that, particularly in depressed years, the farm wage-earner has practically to compete with free labour. . . The creation of a Canadian minimum standard of living must start with the farm worker, not only because his defences against deterioration are least, but also because without a better standard it is impossible to expect agriculture to retain or attract the calibre of manpower it needs."[1]

A particular handicap of the farm labourer is that he is almost universally catered for as a single man. As a farm labourer he is unable to marry and raise a family. He could base this possibility only on the hope of some day taking up his own farm. Only a small proportion of farmers can afford to supply separate and decent living accommodation which would take care not merely of a single labourer, but of his wife and family.

Farm communities throughout the country to-day are suffering from a chronic shortage of labour, but this is not calculated to improve the attractiveness of farming in the postwar period. Many workers at present in industry without any specialized skills might be willing to work in rural areas after the war if living conditions were reasonable; but they may well prefer to be employed in the city than to work as farm labourers under the conditions of inadequate and makeshift quarters, isolation and lack of family life which will be their lot unless a new housing policy is set in motion. On the other hand, if housing accommodation and other facilities were available which permitted farm labourers to marry, or married farm labourers to house their family and educate their children, more workers might be encouraged to earn their living in agriculture. Housing policy for farm labourers, if effectively and widely implemented, thus holds out a possibility of favourably affecting the balance of urban-rural population, assisting farm efficiency and productivity, and in certain circumstances raising the standards of rural community life.

There are two approaches to this branch of housing policy which must be carefully considered. The first is to facilitate the construction of modest housing units or cottages on individual farms. This may be particularly adaptable, and even the only policy possible, in the regions in which farms are extremely large

[1] G. V. Haythorne and L. C. Marsh, *Land and Labour*, pp. 368-9. McGill Social Research Series No. 11. 1941.

and separated from each other by great distances as on the Prairies. Alternatively, housing may be constructed as far as possible in groups, or preferably in village communities.

The construction of single cottages should be feasible under much the same terms as are suggested above for housing units built for the use of the farmer himself. Designs should be drawn for varying grades and types (for example, farmer-owned occupancy, tenant farmers or married farm labourers, and possibly single or multiple units for unmarried farm labourers), and presumably costs would vary accordingly. For group housing or village community construction, either a co-operative arrangement between a number of farmers or the collaboration of the (rural or urban) municipal authority would be necessary.

The attraction of the single cottage built directly on the farm is that it might be made available free of rent to the agricultural labourer. It would also be particularly adaptable for the transient harvest worker who would be in occupation only for a short time. On the other hand, this project would have to be handled as an individual undertaking by the farmer, whereas a village-group scheme might be implemented with provincial and/or municipal assistance. The possibility of some co-operative assistance in financing and construction, of course, would not be ruled out under either plan. The ownership of an extra housing unit built directly on the farm naturally appeals to the farmer as a method of assuring his labour supply, and of having his worker or workers within close access. It is less attractive from the worker's point of view, as it involves the features of what is known as the "tied cottage" in Britain, i.e., the complete dependence of the tenants on the goodwill of the farmer, and a lack of security and independence which is not offset by a very sizeable wage. Much would depend on the extent to which the hired worker is actually to be assured the possibility of doing some farming or gardening of his own. For the farm worker who works long hours, the distance between his work and his home is an important consideration. But even for the large farms it is not impossible to effect some grouping of a few farm neighbours; and with greater development of roads, and availability of gasoline supplies after the war, transportation between the farm and the community group or village should not be an insuperable obstacle.

The economic and social advantages of the group or village method demand serious consideration. Almost certainly the group housing projects are less costly than scattered single units. This applies not only to the houses themselves but to the facilities which have to be provided. The group-method also offers a greater possibility of social relationships, not only for the workers, but for their wives and families. They may either provide the nucleus of a new unit of community life, always welcome in a rural district, or they may help to infuse new life into tiny municipalities which have declined or failed to grow; they may bring a small but stable population to the little cluster of elevators at the railway stations which do duty as a village at many points on the western plains. Schools and recreational facilities can be better located and better utilized. There would be more opportunity for the development of small-scale rural industry which could draw on the women and elder children as workers, as well as the men in the winter season. It would, of course, be quite possible and desirable to build the housing groups in such a way that small gardens were attached to each.

It may be noted that the financing of farm housing for tenants, organized in such a way as to be separated from any pre-existing mortgages on the farm has been accomplished in the United States through the deeding of an acre from the farmer to the Housing Authority, which is in effect no more than a token of transfer. It is possible that this device may be applicable to Canadian conditions in some regions, but the American procedure has been utilized

mainly in the southern States, and this is a type of housing policy which is more appropriate to plantation conditions. The procedure might perhaps be retained as an option which may be acceptable to some farmers.

It has been suggested in some quarters that the necessity of providing facilities for farm workers which would give them an opportunity of settlement, as well as housing as a separate family unit, is so important that it would be good national policy to organize the construction of such houses as a virtual gift, i.e., building them on the property of any farmer who provides the land, obtaining from him in return only his labour and assistance in construction, or else a purely nominal charge.

For either individual or group housing for labourers, it is possible that salvage materials from Wartime Housing units and other demounted construction and demobilized equipment could be used to good purpose. It would be desirable to make a preliminary survey—preferably before the end of the war—of the agricultural areas which might thus be usefully served and the supply of houses of this type which would be required. In this field as in others, it is probable that no one expedient will be sufficient to deal with the whole volume of need, or with the variety of conditions which present themselves.

3. *Community Facilities*

The provision of community centres in rural districts does not come under the head of housing in the strict sense. It is a matter for the future of such vital importance to the welfare and revivification of rural communities, however, that it should be ensured a place in the national program of housing, town and rural planning. It should certainly receive consideration in community planning legislation designed for rural areas. It is, in one sense, a counterpart to the provision of community facilities in the case of slum clearance and rehousing projects in the cities; but for the agricultural district it has a special appeal.

The kind of community centre building which is required in a forward-looking view of the rural society is a multiple-purpose unit, which could be utilized for public meetings, certain kinds of recreational facilities, libraries and films (possibly on a travelling basis), exhibitions of many varieties (e.g., paintings, agricultural developments, town planning, rural housing design, etc.). The possibilities of enhancement of community participation and attractiveness of rural life generally, if such a local facility is available, are so great that a national chain of such buildings should be given a priority in postwar construction programs at least equal to the development of rural electrification, which in its own sphere has the same kind of promise of a new impetus to agricultural living.

In general principle, financial facilities for such buildings are already available under the terms of the Municipal Improvements Assistance Act (1938). In its present form, however, municipal projects must receive the approval of the provincial government, and failure of some of the provinces to adopt the legislation has restricted its use. If the recommendations made elsewhere for the active entry of provincial governments into the field of rural and urban community planning are followed, the opportunity should be taken to review the provisions of this Act to give special encouragement to community-centre construction, financed on as reasonable terms as possible and by long-period amortization.

It would seem entirely reasonable that, provided guarantees in the matter of design and cost are secured by the appropriate administrative authority, municipalities should be empowered to deal directly with the federal government on this matter if the provincial governments have no objection. It is to be hoped, however, that provincial government interests in this rural amenity will lead them to participate, if not financially, in various other ways. What

is needed particularly is a series of designs and blueprints, directed to the purpose of creating units efficiently adapted to the multiple functions of a centre. They should be of various scales and types for the needs of communities of different sizes, and should have regard also to the aesthetic value of good design and the possibilities of relating this to the geographical and cultural characteristics of particular parts of the country.

There is also much scope for co-operation and citizen-group effort in this field. This may relate to some part of the financing; but it applies notably to several parts of the preparatory and later the operative stages of a project. No subject of governmental assistance is more likely to generate a community response and elicit contributions from citizen sources.

4. *Availability of Disposable War Supplies*

The availability for farm use, of salvaged materials or equipment left unused at the end of the war should be given special consideration for all types of farm housing—for ownership, tenancy, and community facilities. This is important enough to warrant the setting up of a specific agency, with a title such as Farm Building Supplies Corporation, for the purpose of handling all supplies and equipment available at the end of the war which could be contributed to a farm building program. Some of these materials might be donated in return for the labour of assembly; others might be supplied at a substantial rebate, provided that the farmer makes certain other undertakings under the appropriate schedule of the National Housing Act.

Since distance and transportation costs are likely to prove serious obstacles for many farmers who would otherwise wish to acquire wartime materials or equipment at disposal rates, attention should be given to the possibility of zoning supplies or in other ways giving priorities to farms to equalize the opportunity throughout the country to take advantage of this contribution to housing improvement.

CHAPTER II

REDUCTION OF HOUSING COSTS

A series of considerations combine to emphasize the need for developments in the post-war period that will reduce the costs of house construction. There are three reasons, however, which have special force. The first is the economics of public housing programs themselves. Low-rental house building has been necessitated in modern communities primarily because of the existence of families whose incomes are insufficient to permit them to pay current rents. But it is also true that if building costs were very much lower than they are at present, the rents of new houses might be brought down to income levels. Put in another way, the lower the costs of construction, the smaller the subsidies which will be necessary to close the gap between "economic rental" and the rentals that tenants of housing projects can afford. Getting houses built which will actually rent at $12 a month or lower is a challenge to postwar programs to which several cost reduction devices must be directed. Even house building for ownership will not be taken up by large sections of the population unless construction expenses are much lower than they have been in the past.

In the second place, the subject must be of keen concern to private contractors, and the construction industry generally. It is commonly accepted that there will be a wide market for privately financed housing in the post-war period if costs are reduced. There are many new technological developments to be realized and the competitive situation will probably be keen. Estimates of costs of prefabricated units run as low as $1,500 for a two-bedroom house. But there are also a number of monopolistic elements, and elements also of inefficiency and over-competition in the industry at large (including building supplies, contractors, and building labour). Without review, co-ordination and advance planning, there is no guarantee that economies of which there is already cognizance will be widely adopted, or put to the best use from the point of view of the consumer.

Thirdly, the efficiency of the house-building industry is in question. To some extent the remedies may be sought through co-operative action on the part of contractors and builders. But there is need also for considering what governmental policies may be best brought into operation, whether through research or other avenues, to improve the techniques of housing production, apart altogether from assistance in the field of finance which has hitherto been the main avenue of governmental intervention. The magnitude of a requisite post-war housing program is such that the implications for the house-building industry cannot possibly be ignored. Attention has been called to this matter from many quarters, and a few citations which express the situation well may usefully be made here.

In an address made by Dr. W. C. Clark, Deputy Minister of Finance, some years before the war, he referred to the problem as follows:—

"The laborious assembly of the multitude of individual items that go into the making of a house, all purchased in expensive retail lots; with the slow succession of the long series of sub-contractors and skilled artisans of different trades whose co-operation is only loosely organized, resulting in loss of time, confusion, frequent jurisdictional disputes and excessive cost; with the waste and delays due to vagaries of the weather and the loss involved in the disposal of excess material and of the temporary manufacturing plant located on the building site. Not the least important source of waste and excessive cost is the elaborate system of small-scale jobbers and middlemen who must keep on hand

stocks of material and equipment for contractors and sub-contractors with limited financial resources. The small scale of such operations, the difficulty of gauging an uncertain and fluctuating market, and the long tie-up of capital in a myriad of necessary raw materials result in an inevitable marking up of such materials by from 10 to 100 per cent over manufacturers' cost, all of which cost has to be borne by the completed house. . . "

"Making due qualification for the fine contribution of many small builders working under great handicaps, the truth of the matter is that the ablest and most responsible elements in the construction industry have not devoted their attention to the building of houses. They have spurned a business which appeared to be turning out a handmade product catering to the particular idiosyncracies of a few individuals in the higher-income groups. They have overlooked the possibilities inherent in applying organizing and promotive ability, large-scale methods, adequate financial resources and modern science, to the task of providing decent and economical shelter for families in the lower and middle income groups. This task has been left to the smaller and sometimes to the less responsible elements in the industry who are confronted with difficulties which . . . are almost insurmountable and the results are—what we see around us on every hand."[1]

In an authoritative American study[2] the major causes of low productivity and high cost have been summarized as: "lack of co-ordination and systematic organization, failure of the industry to keep pace with other industries in technological improvement, prevalence of restrictive practices throughout the industry which deliberately limit output and prevent the introduction of cost-saving materials and methods, backwardness of design and lack of standardization in measurements which prevent mass production of larger units of materials, and the retarding influence of tradition".

In similar, but even more challenging terms, the situation has been described by Guy Greer and Alvin Hansen, two specialists in housing who have been quoted elsewhere in this report, as follows:

"It is a matter of common knowledge that residential construction is our most backward industry. In an age of mass production and assembly lines, it remains to-day, with a few noteworthy exceptions, a small-scale handicraft business which hardly deserves to be called an industry at all. It is made up of large numbers of contractors, sub-contractors, material dealers, trades unions, and so on. And, in spite of numerous honest and honourable carpenter-builders and a few larger operators, as a division of economic activity it is shot through and through with graft, rackets, and conspiracies. Topping all this, the manufacture of several important building materials and of much equipment is a virtual monopoly. The result is that every kind of dwelling costs far too much, even while the so-called industry is not and has not been prosperous for many years.

"In urban centres, naturally, construction operations are closely related to those of municipal governments. This is particularly true as regards such matters as building codes, zoning and subdivision platting. And because of the very considerable number of persons identified in one way or another with building, plus the ignorance and indifference of the general public, it has exercised a great deal of influence. But its influence has been unco-ordinated, often based on the shortsighted selfishness of conflicting interests rather than on consideration for the welfare of the community. The plight of our municipalities, both physically and financially, must be attributed in no small measure to the conditions which have existed in and around the business of producing houses.

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[1] Clark, W. C., "Housing". *Dalhousie University Bulletins on Public Affairs,* No. VI. Halifax, 1938.

[2] Stone, P. A. and R. H. Denton, *Toward more housing,* Temporary National Economic Committee, Monograph No. 8. Washington. 1941. p. 130.

"Something like a revolution will be required to correct this state of affairs. Possibly, if we could afford to wait long enough, the change for the better might occur as it has done in other industries. Already some small but encouraging beginnings have been made in the matters of prefabrication and large-scale production. The trouble is that usually the entrepreneurs have not been adequately financed and they have been unable to find backers who would assume the risks involved. And here, it must be remembered, the risks may be large and the sums required, while not formidable for big business, are too much for infant private enterprise."[1]

The Greer-Hansen proposal to remedy the situation is that a research and experimental agency should be set up, with powers broad enough to permit concerted attack upon the problem of finding the most economic possible method of building houses. It should "continue operations until a solution on a full commercial scale is found of the problem of producing good low-cost dwellings—low-cost in terms of the total amount required to pay for their construction and subsequent maintenance and occupancy—both for rent and for sale. It should engage the services of competent engineers, architects, economists, lawyers, and other specialists, and its operations should consist not only of laboratory experiments (in several different regions) but of the actual construction of sufficient numbers of dwelling units of various kinds to show the industry how to solve the organizational and technical problems involved."[2]

Components of Housing Costs

The costs of housing are, of course, made up of a great number of elements. Because there is a tendency to place undue emphasis on one or other of these, it is useful to list all the factors which have to be considered for a concerted attack on the problem. The gains which may be won are by no means equal in every direction; but it is clearly undesirable to force down the costs in one or two fields alone (e.g., on wage rates, or an interest charges) while neglecting other sources of inefficiency or unfair advantage. In a strict definition, of course, it would be necessary to distinguish between the cost of the house (including its basic structure, and its essential interior equipment), and the cost of land, of essential municipal services, possibly certain transportation costs, and so forth. Detailed schedules covering all these variants in what may be considered "the cost of a house" have yet to be worked out for Canadian purposes, and some confusion will probably remain until this kind of study has been authoritatively made. For present purposes, it is not possible to do more than list the main items (as follows), and discuss some of their broader implications.

(*a*) Wages (distinguishing here between hourly wage rates, and the amount paid out in payroll to labour in a standard house).
(*b*) Raw materials (lumber, cement, bricks, etc.).
(*c*) Equipment and installations (doors, windowframes, plumbing, electrical fixtures, etc.).
(*d*) Interest charges on loans.
(*e*) Cost of land, and costs of land acquisition.
(*f*) Fees of architects, consulting engineers, surveyors, real estate agents, and other comparable costs.
(*g*) Remunerations for entrepreneurial and managerial activity (including overhead) either in the form of salaries or profits.

Qualifications to any attempt to discuss these in average terms will occur immediately to many readers. But at least the most important may be brought under two heads:—

(*a*) In the first place, there are *local and regional differences.* These may extend to the availability of particular materials, the amount and skill-

[1] Greer, Guy, and Alvin Hanson. *Urban Redevelopment and Housing,* National Planning Association, Washington. 1941. pp. 14-15.
[2] *Ibid. pp.* 15-16.

groups of local labour supply, cost-of-living differences, and the effects these have on wage rates and earnings. Preferences for certain types of construction also have their effects, though these may be more subject to influence than is usually considered. A factor of very different character is the effect of building codes and by-laws. Primarily these have been designed for safety and other considerations, rather than for economy and for the purpose of stimulating the best technical procedures: by insistence on out-of-date or costly design they may of course, enhance the cost of building.

(*b*) Secondly, the *scale of operation* is a fundamental factor. The major point here is not the size of the individual house, though naturally this could affect the costs to an almost unlimited extent. What is vital is the extent to which economies are possible, given the development of housing at least on a group or estate basis (whether for groups of low-rental houses, or for suburban areas, etc.) ; and, even more on a national scale. The latter affects labour utilization, the purchasing of materials, design and techniques, transport economies, overhead costs of all kinds. Before dealing with methods of reducing costs, some illustration may usefully be given of the relative importance of construction cost components, and of regional variations.[1] The question of scale has so many ramifications that it is referred to at several points as the text proceeds. But it is necessary to emphasize the importance of large-scale planning and its effect on almost all aspects of building cost. A large public housing program should be utilized wherever possible as a means of effecting economies, and as a medium for suggesting improvement in building practice, housing design and project administration.

To assess the relative magnitude of any one item in the total make-up of costs, would require more detailed measurement than is yet available to take care of the situations requiring definition. But some improvement in the analysis is gained by reference to figures for four major items, namely wages of on-site labour; materials and equipment, and entrepreneurial payments, for a representative house. A survey of the experience of construction expenditures for practically all the houses built under the National Housing Acts supplies this information, and the results are summarized in the accompanying table.

This makes it clear that only 35 to 40 per cent of the total construction costs are composed of wages (of men working on the building site) while materials and structural equipment make up 50 to 55 per cent.[2] Significantly, there is a wide range in the overhead expenses of builders and contractors, varying between 8 and 15 per cent, with an average in the neighbourhood of 10 per cent. Put in terms of the dollar-cost of an average house ($3,924), $1,373 was required for the on-site labour force, $2,158 for the industries supplying materials, equipment and transport services, and the remainder, $392, went to builders and contractors for overhead expenses, managerial remuneration, and profits. These figures by themselves, of course, give no indication of the amount attributable to jobbers' margins on materials, etc.

Some of the detail is worthy of comment, though averages here may be less representative in view of the different combinations of craftsmen which are possible. The carpenter is outstanding as the principal craftsman utilized. In the Canadian experience of the particular types of houses built under N.H.A., a major part of the on-site payroll went to carpenters, namely about $508.

[1] To reduce the present text, the material on regional variations has been relegated to Appendix B.

[2] Estimates made by some construction firms place the proportion of building costs going into payrolls for on-site labour at 40 rather than 35 per cent and a somewhat lower proportion (50 instead of 55 per cent) going into expenditure for materials. Allowance for this variation has been made in the text.

Similarly, the largest proportion of expenditures for materials went to the lumber and milling industries, involving about $945. This is noteworthy in view of the fact that a sizeable proportion of the houses constructed with assistance under the housing acts were solid brick structures.[1] Second in order of expenditures for materials, and third in remuneration of on-site workers are plumbing installations, about $181 per unit going to plumbers and about $237 going to the plumbing industry. However, since heating equipment is frequently produced by the same firm or goes through the same trade channels as plumbing supplies, the share of the plumbing and heating industry as a whole is much larger and amounts to $421.

TABLE 52.—DISTRIBUTION OF CONSTRUCTION COSTS OF AVERAGE HOUSING UNIT (TYPE BUILT UNDER NATIONAL HOUSING LEGISLATION)

Type of Expenditure	Construction costs of average unit	
	Dollars	Per cent
1. *Remuneration to construction labour*	1,373·40	35·0
a. Carpenters	508·20	13·0
b. Semi-skilled and unskilled workers	309·00	7·9
c. Plumbers	181·30	4·6
d. Plasterers and tile-layers	125·00	3·2
e. Masons and bricklayers	100·30	2·5
f. Glaziers and painters	65·90	1·7
g. Roofers, sheet metal workers	43·90	1·1
h. Electricians	39·80	1·0
2. *Material costs*	2,158·20	55·0
a. Lumber and lumber products	945·30	24·1
b. Plumbing supplies	237·40	6·1
c. Heating supplies	183·50	4·7
d. Cement, gravel and sand	157·50	4·0
e. Lath and plaster	157·50	4·0
f. Brick and stone	123·00	3·1
g. Paint and glass	123·00	3·1
h. Roofing materials	79·90	2·0
i. Electrical equipment	73·40	1·9
j. Tiles	45·30	1·2
k. Linoleum	28·10	0·7
l. Other materials	4·30	0·1
3. *Overhead and profits*	392·40	10·0
Total	3,924·00	100·0

Source: Special tabulation from records of Housing Administration, Department of Finance (cf. O. J. Firestone, *The Labour Value of the Building Dollar*, Ottawa, 1943). The figures are averages for 25,000 housing units built during 1935-1943.

The second largest item in the on-site payroll is the common labour group whose remuneration amounted to about $309 per housing unit. This group is composed of the workers engaged for excavation and other types of earth work, and semi-skilled men who act as helpers to building craftsmen. In terms of man-hours, the payroll for unspecialized labour provides more employment than an equivalent expenditure for skilled construction workers because the hourly wage rate of the labourer is so much lower than that of craftsmen. This is another way of saying, however, that more semi-skilled and unskilled workers are employed in house building operations than is commonly realized, and it is conceivable that the amount *per unit* might be reduced.

[1] It is currently estimated that about 5,500 board feet of lumber are required in the building of a medium-sized brick house. (This measurement relates to the surface area of lumber, reduced to one-foot thickness.) The amount of lumber contained in a frame house is, of course, much greater and is somewhere in the neighbourhood of 9,500 to 10,000 board feet for the average house built with public assistance.

It should be said at once that a reduction of building costs is not to be sought solely by reducing the remuneration for operations which contribute to the completion of a house. The real problem lies much deeper; it is to increase the output per man-hour of all workers, on-site and off-site, a goal which can only be achieved through research, advance planning and scientific management. If this fact is accepted, it is feasible that a significant reduction of costs (per housing unit) could be achieved, consistently with maintaining wage rates and managerial remuneration at a reasonably high level and without going below a desirable standard of construction.

It is also important to note that a reduction in the costs of building materials may realize a greater saving than a similar reduction of wage rates of the on-site labour force. Economies or technical improvements which effected a ten per cent reduction in the cost of materials would mean, judging from the average house of the recent past, savings of $216 as against $137 which would be the reduction from a ten per cent cut in the wages paid to all on-site workers. Such a direct comparison is illustrative only, since changes in methods which might very probably be involved in the use of different materials would have some effect also on the amount and proportions of skilled and unskilled labour respectively.

A different implication attaches to some of the other facts in this measurement. With the exception of wages for carpenters and payments to the lumber and milling industries which make up 13 and 24 per cent respectively, almost every other item constitutes by itself only a small proportion of the total costs. It is the existence of a composite number of items such as this, no one of which calls for a large proportion of the total expenditure, which is favourable to monopolistic or semi-monopolistic practice. The prices of plumbing supplies or of cement may remain fixed when other elements (including wage rates) are falling, or the distributive margins on them may be high, without an appreciable decline in the demand for them being the result. Nor is their contribution to the cost of a complete house sizeable enough in itself to attract public attention. It is true that, by the same token, the reduction of costs due to monopoly or price-maintenance may mean only small savings to the individual home builder. However, savings thus made possible acquire greater significance in any large-scale housing program, particularly when publicly-financed low-rent housing may make up 25 or 30 per cent of the annual housing program.

Methods of Cost Reduction

(*a*) *Interest Charges.* Obviously, the lower the rate of interest on money which has to be borrowed, the cheaper the cost of the project. It is true that extension of the period of amortization results in greater reduction of monthly unit-payments than reduction of the interest rate within certain levels. Thus, at 5 per cent, the difference on a $1,000 loan amortized over twenty years and thirty years respectively means a saving of $1.24 per month per $1,000; whereas on the basis of twenty years amortization the reduction of the interest rate from 5 per cent to 4 per cent cheapens the cost by only 52 cents per month per $1,000.[1] Much accordingly depends on the scale of reduction in the rate of interest which is feasible. A reduction from levels around 5 per cent to e.g., 2½ per cent has very considerable effect indeed, no matter what the period over which the loan has to be repaid. Moreover, reduced interest rates lower both the monthly and the total cost, while longer amortization periods increase the total cost.

[1] Nicolls, F. W., "Private Enterprise Housing", *Journal of the Royal Architectural Institute*, September, 1943, p. 145. Extension of the period of amortization, it must be emphasized, depends vitally on the wider implementation of town planning measures, which alone can give any guarantee that the land and property values of a given area will remain reasonably stable over long periods.

The question of interest charges should not be considered solely in unit terms. Much depends upon the scale of the total requirements for the country as a whole. If rates are too high, the program which is necessary—whether from the point of view of housing needs, or of full employment policy—may not be forthcoming. Before any decision is taken by the government, which for all practical purposes will fix the standard rate at which housing programs are to be financed for a long period in the future, a careful review should be made of governmental financing and of the financing of the major investment institutions (particularly insurance and mortgage companies), to reach a balanced judgment on what is the lowest rate compatible with the need for a large-scale housing program, as well as the extent to which adjustment has been made to reduction of rates below pre-war levels.

It must not be forgotten that public housing, if it is efficiently undertaken and on a sufficiently large scale throughout the country, should be a sound and stable investment. It should be at least compatible with ordinary municipal financing, which in many areas is now considered reasonable at 4 per cent. Moreover, housing in many European countries, notably Sweden, has been facilitated particularly through the reduction of the burden of interest charges on rental housing to a very small dimension indeed. The part which co-operative associations and Building Societies on the English model may play, either in financing housing at low rates directly, or as appropriate agencies for the handling of money at subsidized rates, should also be considered in deciding on interest rate policy for post-war housing.

(*b*) *Wages and Labour Costs.* Labour costs will always play a large part in the total costs of housing, though as already pointed out they have on occasion been over-emphasized. Taking them at their full value in the cost equation, however, there are at least three approaches to the problem of securing economies.

(i) It is fundamentally important to distinguish between current wage rates (e.g., on an hourly or daily basis), and earnings, more particularly annual income. The latter is a matter of the stability and continuity of employment, which in the long run is far more important than the unit rate which may only be paid for irregular periods or, as is notably true in construction, for not more than eight or nine months in the year. This fact sets the conditions under which concessions from building labour, if they are needed, may be obtained. Provided building workers can be offered better guarantees than they have at present, of more stable or year-round employment, lower wage rates would be more than outweighed by larger annual earnings.

Methods of securing economy in labour costs will elicit the co-operation of the building trades only if they are combined with policies directed at providing more stable employment. The same considerations apply to the elimination of restrictive practices (in apprenticeship regulations, craft demarcations, etc.) from trade union policy.

At as early a date as possible, therefore, preferably after the broad lines of the national housing program have been drawn, discussions should be inaugurated with representatives of the building crafts on the subject of wage rates and employment regularity in the specific field of housing.

There are various ways along which efforts may be directed. One is the reduction of irregularity in changing from one job after its completion to another. This is a problem for co-operation among management, organized labour and the employment exchanges. There are some possibilities even within the confines of a particular district or city, such as have been explored by Builders' Exchanges. The possibility is obviously enhanced, however, if arrangements could be worked out to assist transfers between one centre and another.

The scope of post-war activity in the construction industry being what it is, there should be no excuse for construction workers remaining idle in one locality when there are shortages of men in others.

Expedients which will reduce the prevalence of unemployment during the winter are of direct importance. Planning of construction projects in advance so that interior work can be done during the winter months is one of the most practical devices. Given the appropriate concessions on the part of trade unions, it should also be possible for building workers to do general handiwork in the off season, which again can be available if some planning is devoted to the subject. Consideration should be given to the setting of off-season rates of wages which would be lower than the regular rates.

(ii) The most important development on the post-war horizon, however, is the likelihood of extensive production of both structural and equipment parts by factory methods. If some of this production could be bulked in the winter months, a dovetailing of labour might be established. This could only be done, however, if trade union regulations on skill and craft demarcation are modified to meet the situation, and building workers are willing to work as factory employees in the winter months.

Increased use of machinery, and the extension of factory production within the housing industry, is virtually a necessity if new housing accommodation is to be provided on the scale demanded by existing needs. To the extent that smaller proportions of labour are required for the actual construction of each individual dwelling, labour costs *per unit* are directly economized. This could be quite consistent with higher incomes for both construction workers and factory personnel, when the total housing program is immeasurably larger than it has ever been in the past, and there are new opportunities for greater year-round stability in construction activity as a whole.

In the last analysis the long-term program, which is reconcilable with large-scale building techniques, is the outstanding guarantee against depression unemployment. If the fear of depression unemployment could be really removed, the insistence on wage rates as the principal element in collective bargaining might well disappear.

(iii) Labour costs can be directly economized by the use of the labour of the tenant or the purchaser himself as builder. This is particularly facilitated with the use of certain types of prefabrication or mass assembly. It was one of the special features of the Swedish "magic house" program; a successful Canadian example is its incorporation in the Nova Scotia housing scheme. It should be particularly applicable to some forms of rural housing (see Chapter 10).

(c) *Materials and Equipment.* The cost of materials and equipment is affected by a wide range of factors, some of them technical in nature, some of them due to transportation and related factors, some to the conditions under which they are produced and marketed.

The view is held in some quarters that the whole situation may be radically changed by the advent of new materials such as plastics, or new uses of metals, which will be cheaper and more efficient than older types of materials; also that mass production of equipment installations, and even of certain structural parts of houses, may also revolutionize the cost situation. Some sections of the industry, however, take a more conservative view, and suggest that anticipation of radical reductions of costs through new techniques are likely to be disappointing. However this may be, attention should be paid to other aspects of the situation which may apply equally to old as to new materials.

Complaints have been made more than once of monopolistic or restrictive practices on the part of manufacturers. In the past some enquiries have been made under the Combines Investigation Act, and some prosecutions for illegal

restraint of trade have resulted.[1] In the United States the Temporary National Economic Committee has subjected the construction industry to an extensive survey, and has discovered restrictive practices in almost every branch. The Federal Trade Commission which keeps over one-quarter of its investigatory staff busy on the construction industry, has prepared ponderous briefs against some of the materials producers.

A number of trends which affect the post-war period must be watched:[2] these include tendencies towards monopoly in some of the construction and supply industries, and the introduction of new materials and techniques which are restricted by patent rights or whose production is confined to a few manufacturers. Adequate publicity against anti-social restrictions and price maintenance may be sufficient to render serious action unnecessary. But the facilities of the Combines Investigation Act and, if appropriate, the Tariff Board should be used to make enquiries, and it should be understood that these may be requested by prospective home purchasers, contractors, municipal housing authorities, and other governmental agencies.

The earliest opportunity should be taken to remove sales taxes on building materials and equipment. But some of the important construction equipment and machinery used in Canada is imported. Consideration should therefore be given to the possibility of reducing the tariffs on certain commodities such as metal goods, heating equipment, plumbing supplies, and partially fabricated materials used by Canadian industries for the manufacture of building products, which would be most effective in facilitating house construction of the desired kinds. In view of the scale which such imports might attain during active building periods in the postwar years, it may be desirable to make this topic a matter for inter-governmental consultation (particularly with the United States) in advance.

Considerable disparity in the delivery costs of materials and equipment often proves a handicap to particular areas. The system of multiple basing points for freight rates should be re-examined, whether by the Transport Commission or another appropriate body, with a view to eliminating inequities of pricing throughout the country. The possibility of regional subsidies as a means of offsetting some of these costs is referred to in Appendix B.

(*d*) *Building Practice.* Government co-operation should be offered in any ways appropriate to the construction industry, the architectural and engineering professions and other interested groups, for the promotion and adoption of the principles of modular design and the standardization of building materials in the chief fields of housing construction, both urban and rural.

Considerable effort has been devoted to promoting standardization of design at the constructional level by the Producers' Council in the United States, while in Great Britain more than one organization has brought together engineers, architects, housing specialists and contractors on the subject. A recent

[1] The Registrar of the Combines Investigation Act has been the recipient of many complaints with regard to builders' materials and supplies, but only two instances have been the subject of report followed by prosecution under the Act: the Amalgamated Builders' Council (relating to plumbing and heating equipment) in 1929 and the Electrical Estimators' Association in 1930. (See *Reports of the Commissioner, Department of Labour,* Ottawa.) The cement industry was discussed with considerable detail as to prices, volume of production and profits, in two hearings before the Advisory Board on Tariff and Taxation in 1928, on the application of the Canadian Council of Agriculture. (See *Records of Public Sitting, Reference 105, Cement:* Hearings of September 25-26 and November 20, 1928. King's Printer, Ottawa.) Requests for investigation in the field of electrical and plumbing supplies were made to the Royal Commission on Price Spreads in 1936 but "considerations of time" prevented the Commission from acceeding to these requests (*Report of the Royal Commission on Price Spreads,* Ottawa, 1937. P.3). A brief review of the United States situation is given in *Towards More Housing* (TNEC Monograph No. 8, pp. XVIII and 47ff). A number of Canadian suppliers (e.g. gypsum, masonite, insulation materials) are subsidiaries of American firms.

[2] See also Appendix B, part b.

study of the construction situation in Canada[1] concludes that a research organization mainly drawn from private industry should be set up, and should concern itself with the following topics: (*a*) design; (*b*) dimensions (i.e, problems similar to the American Project A-62, engaged in research on the four-inch module); (*c*) quality of material; and (*d*) assembly methods. It is also recommended that a central government agency, similar to the National Bureau of Standards in the United States should be established to co-ordinate public research on standardization and simplification of materials and processing. Such a body should work in collaboration with the Canadian Engineering Standards Association; and should also have the powers and staff to carry out educational programs. Without the latter, voluntary acceptance of more efficient practice may be much too slow to have any impact on the situation.

The only development which is waiting ready to hand at the moment is the completion of a standard Building Code by the National Housing Administration, the National Research Council, and other collaborators. This has been codified after study of existing regulations in all the main cities. But it is much more than a mere codification for the modifications it embodies have been particularly designed to permit more economical and efficient building. An urgent endeavour should therefore be made to secure the nation-wide adoption of the residential section of this Code. This is one of the post-war preparations that every municipality can make in advance of the end of the war, and without any prohibitive costs; though provincial government encouragement may also be helpful. It is obviously one of the matters that could be facilitated through the existence of a Dominion Town Planning Authority (recommended in Chapter 7); but consideration should also be given to the desirability of incorporating it more positively into the requirements of the National Housing Act or other parallel legislation in future. A simplified version of the Residential Section of the National Building Code is under preparation by the National Housing Administration now, and this should be given every facility for early completion. Furthermore, educational literature explaining the advantages of the adoption of the Code is required, and should be prepared for distribution to local authorities and interested individuals and groups.

In some fields which demand not only research but administration, it is to be doubted whether the establishment of permissive experimental facilities under the National Research Council will be sufficient to achieve what is required. This applies, for example, to the use of certain low-cost construction devices, and to new techniques of electricity and heating, for both urban and rural houses. It applies perhaps most of all to model housing projects for the purpose of practical demonstration of techniques of low-cost construction, to builders, architects and the public generally. It is strongly recommended that provision should be made in the National Housing Act or in parallel legislation, for the construction of model, experimental, or demonstration projects, and their exhibit in whatever ways will best extend knowledge of their value.

It is not yet realized that the matters which have been mentioned above are among the prerequisites for any widespread adoption of prefabrication or allied techniques. This subject is so much in need of definition that special attention has been given to it in one of the supplementary memoranda (Appendix K). It should be reiterated here, however, that an early review by an appropriately constituted committee is needed of the problems covered in the American Project A-62 referred to above. Specific attention should be given to existing Canadian practice and to Canadian requirements, since there is no guarantee

[1] Firestone, O. J., *The Construction Industry in Relation to Postwar Economic Policy.* Special study commissioned by the Advisory Committee on Reconstruction.

that the United States proposals are immediately applicable here or that they will be readily acceptable to the construction industry unless some authoritative study is undertaken.

(*e*) *Organization of the Housebuilding Industry.* It is not enough to consider specific elements in cost without some reference to the efficiency of industrial organization itself. The large scale of the post-war program constitutes a challenge which must be met by reforms within the industry itself, not merely by governmental action. One of the basic difficulties of construction economies is the extent to which housebuilding is carried on by small contractors, the excessive number of middlemen and suppliers of materials who may be involved, and the consequent difficulty in securing systematic plans and reliable cost analysis for a given unit. It is obvious that there is a future for any entrepreneurs, large or small, who will devote special attention to the design of houses in much the same way as the problem of building automobiles has been tackled in recent decades. It is possible that the building industry may effect considerable gains in this direction through trade associations which conduct research or study, through the formation of co-operative producing units, or by integration and amalgamation. In the field of low-cost housing, it is equally likely that the securance of better design and organization may have to be sponsored by government.

One of the products of small-scale and highly competitive entrepreneurship is the building of houses for sale on a speculative basis. It is sometimes argued that this has the advantage of getting a good deal of building done comparatively cheaply. But it also results in jerry-building, the retention of old-fashioned methods, and the location of houses in unsatisfactory areas. It is questionable in the light of modern techniques, and the scale of post-war requirements, whether reliance on speculative building will really produce houses which in the long run are proved to be both good and cheap. It is more likely that better housing for Canada requires both more effective organization in the building industry as such, and government assistance and encouragement in a variety of forms other than that of direct financial participation or subsidy such as is recommended in preceding chapters. It is desirable in the public interest that all general contractors and entrepreneurs in the sub-trades should in future be required to secure a licence (provincial or local) before engaging in housebuilding.

(*f*) *Role of the Architect.* It is an important point which is not widely realized that the architect in the past has not been invited to play any large part in the housing of the nation, either urban or rural. For this the architectural profession is only partially to blame. One of the reasons is that Canada has not made any large entry into the fields of public housing, large-scale town planning, or slum clearance; another is the modest scale of most ordinary housebuilding for ownership, even since the advent of financial-assistance legislation.[1] The fact is that home building in Canada in the past has been on a casual, voluntary basis, in which the abilities of the architect could only be economically utilized for buildings above a substantial price level. In the lower cost brackets the lack of funds or small margins of profit of owner-builders, speculative builders and handymen encouraged them to forgo the advantages of architectural assistance. The poor standards of much of our housing in cities, towns and villages bear witness to the results.

The success of future housing requires architects who will be willing to devote their attention to mass provision and large-scale design, in contrast to the individual unit which has so frequently been the main study of the profession in the past.[2] This involves consideration of different social objectives in

[1] The National Housing Administration sponsored competitions among architects for designs, of which the best have been standardized and made available. Most architects will agree, however, that there is still much to be done in this field.

[2] See also Appendix K.

public housing schemes, studies to take advantage of new materials and methods of construction, and means of incorporating aesthetic values into projects which otherwise may all too easily be drab and ugly. It is recommended that assistance from governmental sources should be extended wherever appropriate to professional associations of architects and engineers for the purpose of encouraging the study of (*i*) the design of community housing projects, low-rental housing, and farm housing; and (*ii*) the employment of new and economical materials in these fields of construction.

There is growing evidence that these implications of mass housing and socially-conceived city rehabilitation are recognized, and that the architectural profession is seeking avenues through which its contributions may be made. National and provincial organizations have gone on record stressing the economic necessity of town and community planning, and of the scientific use of labour and materials in the design of even the most modest of homes. They have voluntarily undertaken community planning projects, prepared enabling acts, and promoted public education on housing; and architects have served as members of boards and committees in almost every city which has been "housing conscious" at all. What is needed to focus this interest is enough guarantee that the post-war program will be really large, and national in scope. It is important to add that new alliances will be called for, between the architect and the engineer in particular, and perhaps with others. This is demanded because of the need for utilizing new materials and methods as far as possible; and also to meet the challenge already referred to—the technical problems presented by the large-scale community project, as distinct from the houses built for the single individual or family, which have so nearly monopolized the field up to this point in Canadian history.

SECTION B.—SUPPLEMENTARY MEMORANDA

APPENDIX

A. Housing Trends, 1931-1941.

B. Housing Costs: Regional Variations and Trends during 1919-1942.

C. Rent Control in Canada.

D. Wartime Housing Limited.

E. Co-operative Housing.

F. Building Societies in Britain.

G. The Farm Population.

H. Farm Electrification Requirements.

J. Scott and Uthwatt Reports (Britain): Summaries.

K. Prefabrication and Building Techniques.

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APPENDIX A

HOUSING TRENDS, 1931-1941

At several points in this report the principal data used for evaluation of dimensions relate to 1941, which is probably as good a year as any that might be chosen as a base for projecting conclusions towards post-war conditions. It is well to remember, however, that conditions have been far from static in the last two decades, in which many of the underlying features of the present housing problem were created[1]. It is an important fact that the housing situation worsens cumulatively if private construction or public programs, or both between them, do not keep additions up to population requirements, and also an effective rate of maintenance of the current supply. It has not been attempted to complete a full picture of the damage done to the housing situation during the depression years, but a few further facts on local surveys, rental levels, property values, and some related matters may usefully be added here to supplement the account given in the test.

a. *Standards and Overcrowding.*

The trends in total housing supply during the depression years of the 'thirties, so far as these can be measured, are tabulated in Chapter 1. The evidence of local surveys fills in other parts of the picture. These surveys differed considerably in detail and approach, but the following summary of excerpts will be sufficient to illuminate the general situation.

The situation since 1939, i.e., during the war period, is illustrated by some further extracts from contemporary reports, at the end of this Appendix.

Halifax. A survey conducted in 1932 showed that there existed a shortage of all kinds of dwellings, particularly of those for the working-class population. The existing housing supply had deteriorated to such a degree that it had become a serious problem. "That there are, on the admission of the Board of Health itself, 192 condemned houses at present occupied by 370 families, is one of the most serious findings of all. The fact, moreover, that there are 1,273 additional dwellings condemnable, but such as with repairs will pass inspection, is a matter of scarcely less concern.

"The sanitary conditions of many of the houses are relatively worse than the structural features already considered. The survey reveals a large percentage of buildings in the area examined unfit for hygienic occupancy. In regard to sanitary conveniences the survey shows the common tap or sink to exist in many quarters. The insufficiency of these conveniences has developed with the crowding of numerous families into houses formerly occupied by fewer tenants. It is quite common to find one or two sinks in a hallway in a building occupied by from three to seven families. Members of families frequently must travel two or three flights of stairs to water supplies. Toilet accommodation is distressingly inadequate and inconvenient."[2]

Doubling up of families was considerable in 1932. A survey made by the Department of Health indicated an average of 1·9 families per dwelling and 1·4 persons per room.

[1] The special effects of war industry development and attendant population movements are referred to in Chapter 6.

[2] *Housing in Halifax,* a report of the Halifax Citizens' Committee on Housing, Halifax, 1932.

Montreal. In 1935, an investigation showed that slums in Montreal were scattered throughout a dozen wards where their presence sharply lowered adjoining real estate values. "The area of potential deterioration is extensive." At that time, it was estimated that 18,000 persons needed rehousing and that a total of 70,000 dwellings were required at rentals below levels which private industry could offer.[1]

Further investigations in 1936 and 1937 brought to light marked signs of dilapidation of the existing housing supply. A sample survey of 1,376 dwellings showed the following deficiencies: cracked walls 31 per cent, cracked ceilings 38 per cent, dilapidated floors 33 per cent, broken doors and windows 23 per cent. It was stated in a report three years later that Montreal was "face to face with an acute housing shortage. A vast program of housing remains to be undertaken." The findings of this survey substantiated the claims of the earlier report that a serious need of rehousing existed in Montreal, particularly in the field of subsidized low-rental housing.[2]

Ottawa. The low standard of housing accommodation among the poorer classes in the capital was revealed by an inquiry made in 1935. A survey into the housing conditions of people on unemployment relief, covered 24,835 persons living in 3,529 dwellings. The following defects were revealed in the dwellings survey: bad state of exterior repairs 14 per cent, inadequate heating 64 per cent, inadequate lighting 10 per cent, lack of separate wash basin 28 per cent, lack of separate bath 32 per cent. Since many of the dwellings were shared by two or more families—on an average 1·62 families per dwelling—the situation of many individual families was worse than these figures above suggest. In 1934, one Medical Officer of the City of Ottawa reported that "the scarcity of reasonably satisfactory low rental houses is so great that the Health Department has not been able to take action to abate overcrowding except in the most extreme cases."[3]

Toronto. The effect which poor housing conditions can have upon health can be seen from the following figures, which are taken from a housing report for the City of Toronto submitted in 1934:

". . . The number of cases of *tuberculosis* in June, 1934, known to the Department of Public Health, for the seven ward divisions of poor housing was 37 per 10,000 in contrast to an incidence of 25 per 10,000 for the four districts of good housing. The highest rate, 64 per 10,000 was reached in Ward 4 subdivision 3, which had the greatest population density of any subdivision in the city. . . . The *infant mortality* rate for Toronto as a whole, in 1933, was 63·4 per 1,000 living births, while for the seven areas of bad housing it was 72·6 and for the four areas of good housing 58·3. In Ward 2 subdivision 2 (Moss Park), the rate was 121·2, almost double the rate for all Toronto; and in Ward 3 subdivision 6 (The Ward) it was 83·3."

The effect of bad housing on juvenile delinquency is illustrated by the following figures:

". . . In 1933, the rate per 10,000 of population of *juvenile court cases* for the good housing district of Yorkville was 7·9, while for the poor housing districts of Parkdale, McCaul street and Moss Park, it was 27·6, 24·9, and 36·6 respectively. The latter three districts provided 43 per cent of the juvenile court cases in the city for 1933 and over 52 per cent of the repeaters. 'Even in the district chosen to represent good housing,' the Committee on Housing

[1] *Report on Housing and Slum Clearance* by a Joint Committee of the Montreal Board of Trade and the City Improvement League, Montreal, March, 1935.

[2] A report on housing conditions based on a survey undertaken by the Department of Planning and Research of the Montreal Metropolitan Commission, January, 1938 (preliminary survey).

[3] Report on Relief Housing Conditions by the National Construction Council of Canada, the Ottawa Welfare Board and the Ottawa Town Planning Commission, Ottawa, November, 1935.

pointed out, 'the majority of the court cases recorded were actually resident in the small "bad spots" of that district, where some of the worst housing in the city occurs.'"

The Bruce Report of 1934 summed up its findings as follows: "Our survey of Toronto's housing conditions reveals that there are thousands of families living in houses which are unsanitary, verminous and grossly overcrowded. The Committee confidently estimates that the number of dwellings for which these and other reasons constitute a definite menace to the health and decency of the occupants is certainly not less than 2,000 and may be more than 3,000. In addition, there are probably half as many houses again which, while not in the same sense menacing, nevertheless lack the elementary amenities of life.

"Not only were bad housing conditions discovered, but the presence of a serious housing shortage was also detected. A surplus of households is at present absorbed by doubling-up and overcrowding. If reasonably full employment were to return and marriages delayed by depression were to take place, it is probable that a shortage of some 25,000 dwelling units would become apparent.

"The community is responsible, we believe, for the provision of satisfactory dwellings for those who are too poor to afford them."[1]

The survey of 1,332 dwellings situated in the poorer sections of the city had showed that most dwellings were substandard: 43 per cent were without cellars, 28 per cent were in a bad state of repair, 58 per cent were damp (of these 20 per cent were subject to flood), 9 per cent were without electricity, 55 per cent were verminous, 59 per cent were without baths, 20 per cent had outside toilets, 19 per cent had unsatisfactory inside toilets and 20 per cent were without facilities for the storage of food.

The findings of this report on the low-rental areas were substantiated by a number of other reports prepared between 1935 and 1939; for while new housing was built under the Dominion and National Housing Acts after 1935, no low-rental projects were ever brought to completion.

Hamilton. A survey undertaken in 1932 by the Council of Social Agencies of the city covered 727 households and showed that 53 per cent of these averaged more than one person per room, 31 per cent more than two persons per bedroom and 8 per cent more than three persons per bedroom and 8 per cent more than four persons per bedroom; and that 1·4 per cent of the households lived in basements.[2]

Winnipeg. A survey undertaken by the Health Department of the City of Winnipeg in 1934 dealt with city areas selected because of their marked unsatisfactory housing conditions. Summarizing the findings, it was stated:—

> This survey shows once more that there are far too many families crowded together in houses that were originally designed and constructed for one family without any attempt being made to provide proper accommodation for additional families. The crowding together of families in these illegal tenements, where privacy and individual family life cannot obtain, is far from desirable. There is more wear and tear in evidence in such premises; the occupants are inclined to become careless in their habits; the plumbing fixtures are more liable to get out of order; the walls and ceilings become soiled from use of gas ranges and coal stoves; and the whole premises often present an aspect that points to a neglect of elementary principles of sanitation. There is usually no means for carrying off the products of combustion and the odours of cooking, this being most in evidence during the winter when the storm sashes are in position.

[1] Report of the Lieutenant Governor's Committee on Housing Conditions, (Bruce Report), Toronto, 1934.

[2] Brief of the National Construction Council of Canada, presented to the Select Committee on Housing of the House of Commons. Report, 1932, p. 103.

In housing conditions such as those referred to, the children appear to suffer most and when communicable disease enters such premises, it is difficult to control the spread.[1]

The findings were supported by the following figures:—

Item	Average number of families per unit	Average number of persons per unit
Water closet	1·93	7·25
Sink	1·79	6·70
Bath	3·10	11·86
Wash basin	3·85	14·86

Calgary. In a survey of 91 families in 1929, the Health Department of the City of Calgary found that 13 per cent of these families consisted of a married couple with one or more children living in one room, and 20 per cent living in two rooms. This survey confirmed not only that there existed a shortage of supply in Calgary, but also emphasized the demand side, i.e. the fact that there were a number of families unable to afford proper housing accommodation.[2]

b. Distribution of Rents.

The pattern of rentals for tenant housing which prevailed in 1931 is referred to in Chapter 5. As described here, the great bulk of tenant housing in 1941 rented at between $10 and $30 a month, and nearly 40 per cent within the $15-$25 range. It is not generally appreciated how far this reflects a levelling-down of rents which had been brought about in the preceding decade. Taking the major cities only, the proportion of tenants comprised within the range $10-$34, which was 75·5 per cent in 1941, was 67·8 per cent ten years previously. Most notably, the 21·2 per cent who were paying rents of $15-$19 were a greatly increased group, represented before by only 15·2 per cent. The pressure toward lower rentals, particularly below $25 is evident all down the line (see Table 53).

TABLE 53.—DISTRIBUTION OF TENANT HOUSEHOLDS ACCORDING TO RENT PAID, MAJOR CITIES, 1931-1941

Monthly Rent	Distribution of tenant household		
	Urban, 1931	20 Cities, 1931	20 Cities, 1941
	%	%	%
$9 or less	6·5	1·5	3·8
$10–$14	17·6	11·5	14·4
$15–$19	15·9	15·2	21·2
$20–$24	13·4	15·7	17·3
$25–$29	11·5	14·0	13·7
$30–$34	10·0	11·4	8·9
$35–$39	7·9	8·6	6·9
$40–$44	5·4	6·2	7·5
$45–$49	3·4	4·4	
$50–$54	2·1	3·0	3·4
$55–$59	1·3	2·1	
$60 or more	5·0	6·5	2·9
Total	100·0	100·0	100·0

Source: Census Monograph No. 8, "Housing in Canada", Dominion Bureau of Statistics, Ottawa, 1941, p. 109, and Bulletin H.F.-1, Census 1941, Dominion Bureau of Statistics.

[1] Report on a housing survey of certain selected districts by the Health Department of the City of Winnipeg, January-March, 1934.

[2] Grauer, A. E., "Housing," Appendix to Report of the Royal Commission on Dominion-Provincial Relations, Ottawa, 1939. p. 65.

The explanation of the lower rentals was not that the rental-housing situation had improved from increased building nor that it was more satisfactory in income-rental relationship. One of the main reasons of the greater concentration of rentals below $25 is the fact that the housing supply greatly deteriorated during the decade before the war and simply did not justify higher rents. In many cases, low rents are being charged solely for the purpose of securing tenants for substandard and slum dwellings which otherwise would remain vacant. It is only because of the great shortage of housing accommodation of all kinds and because of the inability of many families to pay rents requested for decent houses that so many are forced to live in substandard and slum dwellings.

The rent index, a component of the cost-of-living index, shows that rentals declined from 119·4 in 1931 to 109·4 in 1940. On the surface, this appears to be a considerable decline. The rent index, however, can only be taken as a general indicator of the rent situation all across the country; it is not the best gauge for changes in the rental situation in the larger urban aggregations where the housing problem has been most pressing.

In many instances, high rents charged for housing accommodation occupied by the well-to-do classes declined considerably more than rents paid by tenants with low incomes. Thus, some cities may show a decline in the average rent without any pertinent changes of the situation in low rental housing.

A few sample figures illustrate the divergences. A comparison of average rents in Ottawa during 1931 with those paid in 1941 shows that there did not occur any marked change at all. In Montreal and Toronto, average rents declined between 5 to 6 per cent during the decade. Vancouver registered a considerably greater decline in the average rent paid by tenant families, namely about 16 per cent.

TABLE 54.—COMPARISON OF CHANGES IN THE RENT LEVEL AND INCOME FOR SELECTED CITIES, 1931-1941

Cities	Average rent		Change in average rent 1931–1941		Change in average family earnings 1931–1941
	1931	1941	Amount	P.C.	P.C. change
	$	$	$		
Montreal	26·6	24·9	−1·7	−6·4	−0·1
Ottawa	33·2	33·4	+0·2	+0·6	+0·1
Toronto	34·9	32·9	−2·0	−5·7	+7·2
Vancouver	29·8	25·4	−4·4	−14·8	+5·6

Source: Census Monograph No. 8, "Housing in Canada", Dominion Bureau of Statistics, Ottawa, 1941, p. 109, and Housing Census, 1941, Dominion Bureau of Statistics. Average rent for 1931 is an estimate based on rent distribution.

It is generally believed that average family earnings in 1941 were greater than they were in 1931; there is less doubt that since the outbreak of war wages and salaries have increased considerably above the pre-war level. Compared with 1931, however, the rise in annual family earnings is less than many would expect. Statistics available for the 20 major cities show an average family income of $1,605 in 1931, as compared with $1,684 in 1941. Average earnings over the ten-year period increased only $79, equal to less than 5 per cent. In some cities, such as Quebec, Saint John, and Saskatoon, average family earnings in 1941 were lower than in 1931, showing a decline ranging between 2 and 7 per cent. Montreal and Regina showed practically no change in the income level. Only five cities showed a marked increase in the annual income, mainly the

result of increased economic activity due to the war. These cities, including Brantford, Halifax, Hamilton, Kitchener and Windsor, show an increase ranging between 16 and 34 per cent.

The fact that average incomes increased very slightly in the main urban centres during the last ten years and was accompanied by a very hesitant and slow decline of rents in these areas, mainly due to the deterioration in housing supply, explains a substantial part of the present unsatisfactory housing conditions among the tenant population.

TABLE 55.—AVERAGE FAMILY EARNINGS IN MAJOR CITIES, 1931-1941

Cities	Annual family earnings		Change in family earnings 1931–1941	
	1931	1941		
	$	$	$	%
Halifax	1,511	1,764	+253	+16·7
Saint John	1,386	1,362	− 24	− 1·7
Montreal	1,530	1,528	− 2	− 0·1
Quebec	1,564	1,534	− 30	− 1·9
Verdun	1,531	1,580	+ 49	+ 3·2
Three Rivers	1,356	1,472	+116	+ 8·6
Toronto	1,758	1,884	+126	+ 7·2
Hamilton	1,422	1,809	+387	+27·2
Ottawa	1,952	1,953	+ 1	+ 0·1
Windsor	1,402	1,882	+480	+34·2
London	1,624	1,694	+ 70	+ 4·3
Kitchener	1,361	1,714	+353	+25·9
Brantford	1,261	1,588	+327	+25·9
Winnipeg	1,706	1,764	+ 58	+ 3·4
Edmonton	1,576	1,624	+ 48	+ 3·0
Calgary	1,686	1,770	+ 84	+ 5·0
Regina	1,638	1,638	0	0·0
Saskatoon	1,620	1,507	−113	− 7·0
Vancouver	1,538	1,624	+ 86	+ 5·6
Victoria	1,547	1,590	+ 43	+ 2·8
Combined 20 Cities	1,605	1,684	+ 79	+ 4·9

Source: Special compilation by courtesy of the Housing Census Branch, Dominion Bureau of Statistics. − denotes decrease, + denotes increase.

C. Property Values

Census statistics appear to indicate that the value of owned houses fell much more heavily than the level of rentals. Possibly the value of properties, influenced by the boom conditions of the late 'twenties, were still too high in 1931; and undoubtedly some of the valuations were fictitious rather than values proved by market purchase and sale. The average decline in 20 major cities for the decade, however, is striking. In only three cities was it less than 20 per cent, and in nine cities the decrease exceeded the average decline, of 33 per cent. The average value of owned homes in these cities, which amounted to $5,428 in 1931, was only $3,626 in 1941, a decline in value of $1,802.

This deterioration of housing supply was due not only to the fact of inadequate expenditures for repairs and maintenance but to a wholly unsatisfactory replacement rate. This is illustrated by the fact that in cities like Saint John, Three Rivers, and Saskatoon, where additions of new houses were very small during the ten years measured, the value of existing houses declined as much as 40 and 50 per cent. In other cities like Montreal, Quebec and Windsor, the growth of slums contributed to the decline in property values.

As Tables 56 and 57 show, along with the loss of values went a decline in ownership. The average percentage was not very great, but this is of course not an index of the larger number of persons who experienced difficulty in meeting mortgage payments, or possibly suspended them altogether, while retaining national titles to the property. In all the cities listed, there are only two exceptions to the general situation that the proportion of tenancy has increased.

TABLE 56.—DECLINE IN THE VALUE OF OWNED HOMES IN MAJOR CITIES, 1931-1941

Cities	Average value of owned homes		Decline of value 1931-1941	
	1931	1941	Amount	p.c.
	$	$	$	%
Halifax	5,100	4,354	746	14·6
Saint John	4,600	2,294	2,306	50·1
Montreal	6,600	3,622	2,978	45·1
Quebec	6,800	3,728	3,072	45·2
Verdun	5,400	2,803	2,597	48·1
Three Rivers	5,600	2,939	2,661	47·5
Toronto	6,500	4,356	2,144	33·0
Hamilton	4,800	3,685	1,115	23·2
Ottawa	6,100	4,568	1,532	25·1
Windsor	6,300	3,404	2,896	46·0
London	4,600	3,372	1,228	26·7
Kitchener	5,600	4,129	1,471	26·3
Brantford	4,000	3,446	554	13·8
Winnipeg	5,000	3,271	1,729	34·6
Edmonton	3,400	2,764	636	18·7
Calgary	4,600	3,391	1,209	26·3
Regina	5,000	3,304	1,696	33·9
Saskatoon	4,500	2,610	1,890	42·0
Vancouver	4,100	2,997	1,103	26·9
Victoria	3,900	3,098	802	20·6
Combined 20 cities	5,428	3,626	1,802	33·2

Source: Preliminary Bulletin No. 28, Housing Census, 1941, Dominion Bureau of Statistics.

(d) *Local Housing Reports Since 1939.*

Some of the details of the aggravations of housing shortages and of the decline in accommodation standards which have accrued during the war period are illustrated by local surveys from various cities (referred to in Chapter 6).

Halifax. The fact that Halifax has been suffering under the worst possible housing conditions, especially since the outbreak of war, has received so much publicity that it is now practically common knowledge. A recent statement by the City Assessor of Halifax maintains that, "Since September, 1939, the influx of people has created an almost intolerable position... We have found many instances of families living in two or three rooms without any proper sanitary conveniences."[1]

Saint John. In a report submitted to the Common Council of the City of Saint John, the Chairman of the Board of Assessors stated: "Many cases... clearly showed that living conditions in Saint John are bad, and the worst feature is that the dilapidated and almost uninhabitable dwellings are widespread, extending into every Ward of the City, a fact that makes the question of housing much more difficult than if these old buildings were confined to a specific section.

[1] Statement of J. F. McManus, City Assessor of the City of Halifax, N.S., October 5, 1943.

"Overcrowding is more general. Properties originally intended for two or three tenants are now housing seven and eight families and in many cases the landlord has not made the necessary improvements so that the occupants might have the facilities for keeping their premises in a clean and hygienic condition...

"Many of the people are now living in localities and under conditions that have stripped them of all their self-respect and pride. . . "[1]

It might be assumed that conditions could hardly get worse than those described in this report, but in a statement dated October 6, 1943, Mr. Sullivan adds: "Since then conditions here have grown steadily worse, many stores having been converted into apartments—in fact a great number of garages have been renovated—so as to take care of some of the families coming in from outside."

TABLE 57.—CHANGES IN THE PROPORTION OF OWNED HOMES, PROVINCES AND MAJOR CITIES, 1931-1941

Province and City	Percentage of owned homes		Deviation 1941 from 1931
	1931	1941	
Provinces—			
Prince Edward Island	56·3	50·7	−5·6
Nova Scotia	48·1	51·0	+2·9
New Brunswick	39·0	38·0	−1·0
Quebec	29·7	25·5	−4·2
Ontario	52·6	47·4	−5·2
Manitoba	50·6	48·3	−2·3
Saskatchewan	54·7	48·3	−6·4
Alberta	53·2	49·2	−4·0
British Columbia	52·1	52·0	−0·1
Cities—			
Halifax	35·2	36·5	+1·3
Saint John	23·5	22·6	−·09
Montreal	14·9	11·5	−3·4
Quebec	25·3	19·7	−5·6
Verdun	11·7	9·7	−2·0
Three Rivers	27·7	22·0	−5·7
Toronto	46·5	43·8	−2·7
Hamilton	48·0	44·0	−4·0
Ottawa	35·2	29·4	−5·8
Windsor	39.9	37·2	−2·7
London	55·4	45·7	−9·7
Kitchener	56·6	51·4	−5·2
Brantford	53·9	47·5	−6·4
Winnipeg	47·0	43·9	−3·1
Edmonton	53·0	46·3	−6·7
Calgary	51·7	44·6	−7·1
Regina	50·3	38·7	−11·6
Saskatoon	53·5	41·1	−12·4
Vancouver	51·0	50·1	−0·9
Victoria	46·8	45·8	−1·0
Combined 27 Cities	37.2	33·3	−3·9
Urban Canada (1)	45·6	41·2	−4·4

Source: Census Monograph No. 8, "Housing in Canada", Dominion Bureau of Statistics, Ottawa, 1941, pp. 13 and 90, and Bullein HF-1, Census, 1941. + denotes increase, − denotes decrease.

(1) Excluding Yukon.

[1] Harold J. Sullivan, Chairman of the Board of Assessors, Saint John, N.B., Report to the Common Council, April 20, 1942.

Quebec. A recent statement sums up housing conditions in the City of Quebec as follows: "...Houses are rather small, fit to allow only a few persons to live in, but insufficient to provide the space required and the necessary accommodation for children. Several houses are now occupied by two families of five or six persons each, while they could hardly accommodate one family of five, a situation, of course, intolerable."[1]

Toronto. A great shortage of housing accommodation in this city is reported by the Commissioners of Buildings, the Welfare Commissioners and the City Solicitor.

In 1940, the Commissioners reported that there were 17,000 cases of two families living in houses constructed for one family.[2] In 1941, the Assessment Commissioner reported that, "There is an acute housing shortage in Toronto... brought about to a considerable extent by the influx of people from the rural communities to engage in war work."[3] A year later Mr. Lewis Duncan, Vice-Chairman of the Board of Control, reported that, "Toronto is suffering from the most acute housing shortage in half a century. Vacancies are at a fifty-year low... The situation bears every evidence of becoming increasingly serious."[4]

Hamilton. The Medical Officer of the City of Hamilton comments thus on overcrowding caused by the war: "In 1941 it was found necessary for the local authorities to take over a large, three-storied factory and convert it into thirty single room occupancies for evicted families who had no place to go, excepting the street. The original idea was to give temporary residence until something better could be secured. While a number of families have been helped in this manner, the final result is that now some twenty or more problem families are located here with no prospect of other accommodation. These families have up to nine children in some instances, and since there is often little or no parental discipline, it is impossible to find any home owner who would accept them as tenants."[5]

A survey undertaken by the Council of Social Agencies yielded the following results: "In a central area of the city bounded by Bay and John, Barton and Main, 294 dwelling houses were surveyed. Of these 93 or 32 per cent were reported as overcrowded (any dwelling with an average of more than one person per room was considered to be overcrowded). For those dwellings on which adequate reports were obtained it was found that 91 families or 437 people were living in 57 houses and sleeping in 186 beds. This is less than $\frac{2}{3}$ of a house per family and $\frac{2}{5}$ of a bed per person. These 57 houses average 4·5 rooms and 8 individuals per house. More than half of the inhabitants of these houses share their bedrooms between parents and children or between children of different ages and sexes. The overcrowding appears to be due to the sharing of houses by several small families and to the presence of roomers rather than to the prevalence of large families... Overcrowding as it is concentrated in the central region of Wards 5, 4, 3 and 2, is a major problem: it endangers the welfare of a known 1,500 of the population, and of from 20-30 per cent of the homes in that area. It is precisely in this area that from 28-32 per cent of the city's delinquency, desertion, neglect and relief cases are found."[6]

Brantford. The Sanitary Inspector of this City recently reported: "Wartime conditions and neglect of suitable homes have increased our housing difficulties. Overcrowding and doubling up are still a health hazard."[7]

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[1] Valere Desjardins, City Archivist and Statistician, Quebec, October 9, 1943.
[2] Report of the Commissioners of Buildings, Welfare Commissioners and City Solicitor, Toronto, July 2, 1941.
[3] Report of the Assessment Commissioner, Toronto, 1942, p. 9.
[4] Lewis Duncan, "Report on Housing for the City of Toronto", June 23, 1942, p. 29.
[5] Statement by J. E. Davey, Medical Officer of Health, Hamilton, October 9, 1943.
[6] Council of Social Agencies, "Survey of Overcrowding in Hamilton," May 28, 1942.
[7] Statement by E. D. Taylor, Sanitary Inspector of the City of Brantford, October 6, 1943.

Winnipeg. A report by the Chief Inspector of the Division of Sanitation and Housing for 1942 states: "During the past few years it has been definitely established that many families are living under conditions which are a menace to the health, safety and welfare, not only of themselves, but of the general public. It is also a fact that where unsatisfactory housing conditions exist, there is an appreciable increase in juvenile delinquency, crime, and infant mortality. Although the subject has been discussed by the many interested organizations, and prominence has been given by means of newspaper editorials, there has been no improvement."[1]

The Assessment Commissioner of the City of Winnipeg emphasizes that the situation has become still more serious during 1943. He states, "The situation has grown decidedly worse and there is now serious overcrowding due to the influx of war factory workers and the unusual number of marriages, particularly those in the services."[2]

Edmonton. In the evidence submitted before the Special Housing Committee on Social Security, the Director of Public Health Services, Department of Pensions and National Health, described housing conditions in Edmonton as follows: "Since the beginning of the war, many soldiers' families have come to live in the city while the husband is overseas. Many others have come to take jobs in war industries. Added to all this, the past year has seen a tremendous influx of Americans. These latter are comprised of military personnel and large staffs of American civilian contractors who have business in the north.

"In short, a housing situation which was very bad before the war has become rather a nightmare at the present time. People keeping house in garages, families living in one and two-roomed suites or in shacks which are altogether unfit for human habitation have become common. Two families with six children (one a girl of 16 years) were found living in a one-roomed shack. The health officer has refrained from condemning many of these living quarters only because he can find no other shelter for their occupants. . . . Since the war, many of the larger city blocks have been divided into one and two-roomed suites with a common bathroom for each floor. Not the least of the undesirable results is the crowding of teen age children into the same quarters with both sexes of their own and older ages. Dr. Little, Medical Officer of Health of Edmonton remarks: 'We are not making good citizens of many of these youngsters.' "[3]

Calgary. Although the housing problem in the City of Calgary dates back to the beginning of the depression in the early thirties, conditions have become considerably worse since the outbreak of war. Evidence reported recently to the House of Commons Special Committee on Social Security was as follows: "The majority of people lost their property and had to move into office blocks vacated on account of business and depression. These were altered into makeshift housekeeping suites. Those who could retain their property sub-divided it and, in many instances, what was a one-family dwelling bloomed into an eight-suite apartment.

"In time, due to lack of money, these became ramshackle and were condemned by the Engineer of the Health Department. The influx of members of the Armed Forces and their families into Calgary has not tended in any way to alleviate the situation but has acted as an incentive for a further number of one-family householders to subdivide, again with injurious results. Dr. Hill,

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[1] Pickering, P., "Report of the 23rd Annual Survey of Vacant Houses and Vacant Suites in the City; also Total Housing Accommodation and Remarks on Housing in General," Winnipeg, January, 1943, p. 5.

[2] Statement by L. F. Borrowman, Assessment Commissioner of the City of Winnipeg, October 5, 1943.

[3] Evidence by Dr. J. J. Heagerty, "Housing and Health." Special Committee on Social Security, Minutees No. 27, House of Commons Session, 1943. P. XII.

Medical Officer of Health of the City of Calgary, estimates that at the present time fifty per cent of the population of the City of Calgary are unsatisfactorily housed."[1]

Vancouver. In Vancouver a special committee was appointed in June, 1937, to survey the housing situation and present a comprehensive housing plan to the City Council. A number of studies were undertaken with the co-operation of the Sociology Department of the University and other semi-public bodies as well as the civic departments.

The resulting report[2] revealed an acute shortage of housing accommodation, serious overcrowding, and in some areas slum conditions of the worst kind. Thousands of dwellings in one-family dwelling zones were occupied by more than one family. The lack of suitable accommodation forced people to occupy shacks and dilapidated dwellings which would ordinarily remain vacant or be demolished. In June of 1937 vacancies amounted to only 1·5 per cent and it was expected that these would be wiped out within the year (the Vancouver committee cites 5 per cent as the proportion necessary for normal conditions). A study of population growth in relation to house construction from 1912 to 1936 showed a "startling lag of dwelling construction as compared to the steady increase of population".

A special reference to the waterfront area described a growing population of approximately 450 adults and 100 children living there, in 210 boathouses and 110 dwellings on piles or on the foreshore (not including a large group living in boats). "For these people there is no sewage system, or septic tanks available . . . and, in most cases, the buildings have no direct water supply. Some sections are very filthy and are situated close to sewer outfalls." According to a statement prepared for the Postwar Housing Committee for the city of Vancouver in 1943, it is impossible to remedy this situation until housing accommodation is provided elsewhere for many of the occupants.

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[1] Op. cit.

[2] Interim Report, submitted to the Vancouver City Council by the Chairman, Building, Civic Planning and Parks Committee, November 15, 1937.

APPENDIX B.

HOUSING COSTS: REGIONAL VARIATIONS AND TRENDS DURING 1919-1942

a. Regional Variations

It would be possible to cite many instances of local variations in cost factors in construction, but since the immediate purpose is that of illustration, two sets of material only have been sampled, namely, wage rates for certain building workers, and prices of building lumber.

Taking 1939, the last pre-war year as basis, hourly wage rates for skilled construction workers in ten representative cities across the Dominion show a substantial variation. Wartime adjustments have imparted a little more uniformity into the situation but regional differentiation in hourly rates is still quite pronounced. Wage rates of construction craftsmen are lowest in Quebec, varying between 55 cents and 80 cents in 1939, and highest in Windsor where the spread rises from 60 cents to $1.15. For labourers, hourly wage rates ranged from 30 cents in Halifax to 55 cents in Windsor, though this type of worker is commonly paid about half the amount which construction tradesmen receive. It is of interest to note that wage rates of construction craftsmen vary considerably in the two cities with the largest numbers of construction workers in the Dominion, rates in Montreal being 15 to 25 per cent lower than in Toronto.

The success of a large-scale housing program in certain sections of the Dominion, where construction costs are comparatively high, will to a great extent depend on the ability to reduce inequalities in the price structure. This could partly be achieved by the use of subsidies covering differentials in transportation costs. If such a policy were adopted, it would follow a precedence established during 1941 and 1942 in the field of agricultural policy where subsidies are paid to equalize transportation differentials of feed grain and fertilizer. The other problem of equalizing hourly wage rates for the same basic types of work in different parts of the Dominion is one that goes beyond the field of residential construction and will probably be greatly influenced by the question of Dominion-provincial jurisdiction in matters affecting employment and by the development of employer-employee relations throughout the country after the war.

TABLE 58.—HOURLY WAGE RATES OF CONSTRUCTION TRADES AND COMMON LABOUR FOR TEN REPRESENTATIVE CITIES, 1939

City	Masons and Bricklayers	Plumbers	Electricians	Carpenters	Painters	Labourers
	$	$	$	$	$	$
Halifax	1.00	0.85	0.85	0.70	0.60	0.30—0.40
Quebec	0.75—0.80	0.55—0.65	0.55—0.65	0.55—0.60	0.50—0.55	0.40
Montreal	0.80—0.90	0.75	0.75	0.70	0.66	0.40
Toronto	1.00	1.00	1.00	0.90	0.75	0.35—0.50
London	1.00	0.80	0.80	0.60—0.75	0.55—0.60	0.35—0.50
Windsor	1.15	1.00	1.15	0.95	0.60—0.65	0.55
Winnipeg	1.10	0.95	0.85	0.85	0.70	0.40—0.45
Regina	1.10	0.90	0.90	0.75	0.65—0.75	0.40
Calgary	1.10	0.95	0.90	0.80	0.75—0.80	0.40—0.50
Vancouver	1.10	1.00	0.75—1.00	0.75—0.90	0.62½—0.80	0.45—0.50
Average for 10 cities	1.02	0.88	0.87	0.77	0.65	0.43

Source: Wages and Hours of Labour in Canada, Department of Labour, Ottawa, 1941.

Among the different construction trades, masons and bricklayers receive the highest hourly remuneration varying between 75 cents and $1.15, the average for the ten cities being $1.02, while painters belong to the lowest group of construction craftsmen receiving between 50 cents and 80 cents per hour with an average of 65 cents. Of course, wage rates have risen since the outbreak of war but on the whole the divergencies between the different trades have hardly changed.

Another significant element in regional variation of building costs are differences in prices of building materials, as explained later. Quality, efficiency in management, distance from the market and trade practices are important factors in determining the cost of the final product.

Variation in lumber prices offers a good example. In house building, fir is mostly used in British Columbia and the Prairies and pine and spruce in Ontario, Quebec and the Maritimes. Some fir is being shipped east and some pine and spruce is being used in house building on the Prairies, but Winnipeg can be taken roughly as the dividing line between the use of fir on the one hand and pine and spruce on the other. The significance of this division is delineated by the fact that in 1943 fir boards f.o.b. mill in British Columbia were quoted at $23.40 per thousand board feet, while spruce boards f.o.b. mill in Nova Scotia were quoted at $39.78 for the same quantity.

In addition to production costs, freight rates are a significant element in making up final costs to the home builder especially if it is considered that lumber is a rather bulky material. The consequence is that the regional variation of prices indicated above is intensified by the location of the new house in relation to the nearest source of supply. This means that a house built in a community near a timber producing area has an advantage over one built in an area some distance away because of the variation in freight costs.

As the following table shows, mileage freight rates vary considerably for different distances and areas. So, for example, the mileage rate for lumber in British Columbia is 14 cents for 50 miles but only 45 cents for 500 miles. On the other hand mileage rates are highest in British Columbia and lowest in the Maritimes, e.g., 14 cents as against 7½ cents per hundred pounds for 50 miles.[1]

TABLE 59.—MILEAGE RATES ON LUMBER, CARLOADS, PER HUNDRED POUNDS, BY REGIONS, 1943

Distance	Regional grouping				
	A	B	C	D	E
	cents	cents	cents	cents	cents
Miles					
50	14	9	10½	9½	7½
100	19½	14	15½	13½	11
150	23	16	17	14½	11½
200	26	18	18	16½	13
300	34½	23	23	19½	15½
400	40½	26	26½	20½	16½
500	45	31	30½	22½	18
1,000	64	51	48	35½	28

Source: Table by courtesy of Board of Transport Commissioners for Canada. The following key explains the regional grouping of mileage rates: A—British Columbia, B—Prairie Provinces, C—Fort William, Armstrong and East, D—Southern Ontario and Quebec, roughly bounded by Windsor, Sudbury, Quebec, Sherbrooke. (Some of this territory is also included in Group C.) E—Maritime Provinces, including Diamond Junction and East in Quebec Province.

Mileage rates are basic rates which are applied in the absence of specific commodity rates. The latter are established for traffic between two specific points and vary frequently from mileage rates. The following example may

[1] The Maritime Freight Rate Act of 1927 provides a 20 per cent reduction on rates for traffic within the Maritimes and for products transported to outside areas.

serve as an illustration of the significance of freight differentials in the final building costs. Assumed that two houses of the same type and the same dimensions are built in Vancouver and in Winnipeg, both requiring, say, 10,000 board feet of lumber (Douglas fir):[1] in both cases, the freight from the lumber mill to Vancouver would have to be paid; but the house builder in Winnipeg would have the added expense involved in transporting the lumber from Vancouver to Winnipeg. Ten thousand board feet of Douglas fir may weigh some 25,000 pounds which, at a rate of 56½ cents per hundred pounds (carload) means a difference in lumber costs alone of about $140 between the two cities.[2]

While lumber has been selected here for the purpose of illustration, cost differentials due to varying distances from the source of supply to markets apply to practically all types of building materials in use in the major cities. While it may not be feasible or desirable to eliminate all freight cost differentials, there is a definite need for levelling off some of the major regional variations in building costs, if the contemplated house building program in certain areas is not to lag behind that of other regions in the Dominion.

b. Trends in Building Costs, 1919-1942

For a proper appraisal of trends of building costs during the past decades, it is necessary to examine the behaviour of some of the detailed components which make up total construction costs. Generalizations commonly drawn from a single or composite index are apt to be seriously misleading. This observation is supported by enumeration which follows, of the shortcomings of three indices which are used most frequently: (*a*) real wage rates in building trades (compiled by the Department of Labour), (*b*) employment in building construction (compiled by the Employment Statistics Branch of the Dominion Bureau of Statistics), (*c*) wholesale prices of building materials (compiled by the Internal Trade Branch of the Dominion Bureau of Statistics).[3]

1. The index of hourly wage rates is based on rates from trade unions whose wage rates are usually less flexible than those of non-union workers. Real average rates of *all* construction workers were probably considerably lower during the depression years of the 'thirties than is indicated by the index. It has been estimated that in 1941, a time when unionization of construction workers had made great progress, organized construction craftsmen still made up only 44 per cent of the skilled workers (wage earners) in the construction industry.[4] This means that the above index of hourly wage rates applies only to working conditions of a section of the construction labour force which, even in 1941, did not comprise the majority of all construction workers.

2. The level of hourly wage rates acquires significance only if it is related to the annual earnings of construction workers. Obviously, a high hourly rate by itself is no guarantee for construction workers that their annual income will be high. As is shown later on, the number of hours of employment during the year is more important in determining the final earnings of the construction worker than high hourly rates.[5] The value of high wage rates in construction trades as a means of assuring a desirable level of annual income is overrated in some quarters, and stability of year-round employment should receive more attention than has hitherto been the case.

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[1] As indicated before, spruce and pine are also used in housebuilding in Winnipeg.

[2] It should be remembered that freight rates are not the sole differential in retail lumber prices for various areas; naturally the size of the market itself plays an important part in price formation.

[3] For a summary of these statistics, see Table 5. *Canada Year Book 1942*, p. 422.

[4] For qualifications attached to this estimate, cf. O. J. Firestone, *The Organization of the Construction Industry and the Construction Labour Force*, Preliminary Report III, p. 39. (Advisory Committee on Reconstruction) Ottawa, May, 1943.

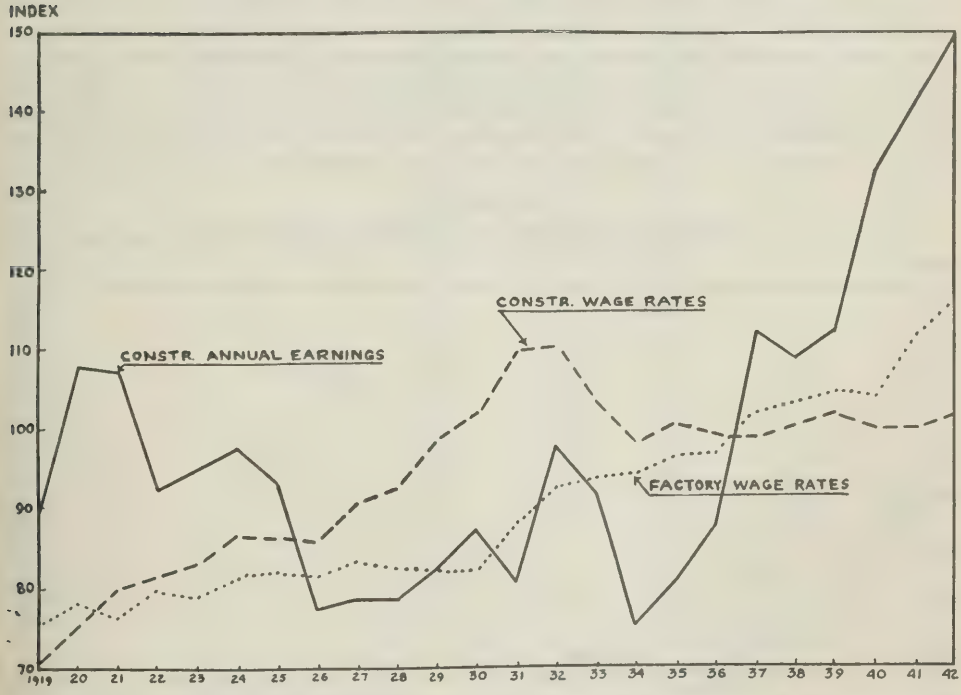
[5] For a proper appraisal of a rise or fall in the wage rate, it is necessary also to relate the hourly earnings to the cost of living prevailing at the time, or, in other words, to determine the real earnings. This adjustment is usually made by users of the standard indices, and it is understood that the reference above is principally to real rates and real earnings.

3. The indices of employment in building construction are based on reports from the larger employers (those normally employing 15 or more workers). Although this group employs the majority of wage-earners in the construction industry, it is known that there are a sizeable number of construction men working on their own account, engaged in subcontracting and repair work, and so forth. In a depression, wage-earners working for large contractors and builders are more likely to be out of work than men working on their own. The probability therefore is that the employment index, as far as the whole construction labour force is concerned, overstates the case somewhat.

4. The composite index of wholesale prices of building materials appears at first sight to be fairly flexible, prices being high in prosperous periods and low in times of depression. This, however, may conceal rigidities which obtain for a number of important materials. A full understanding of trends in prices of building materials would require more attention to the price and production conditions of particular industries than can be given here.

FIGURE 8

TRENDS OF REAL EARNINGS AND WAGE RATES, 1919-1942



This chart shows indices of earnings and hourly rates of wage-earners in the construction industry and hourly rates of common factory labour, corrected by cost of living index numbers, Canada, 1919-1942. (For sources of statistics, see Table 60.) Base of index: 1935-1939=100.

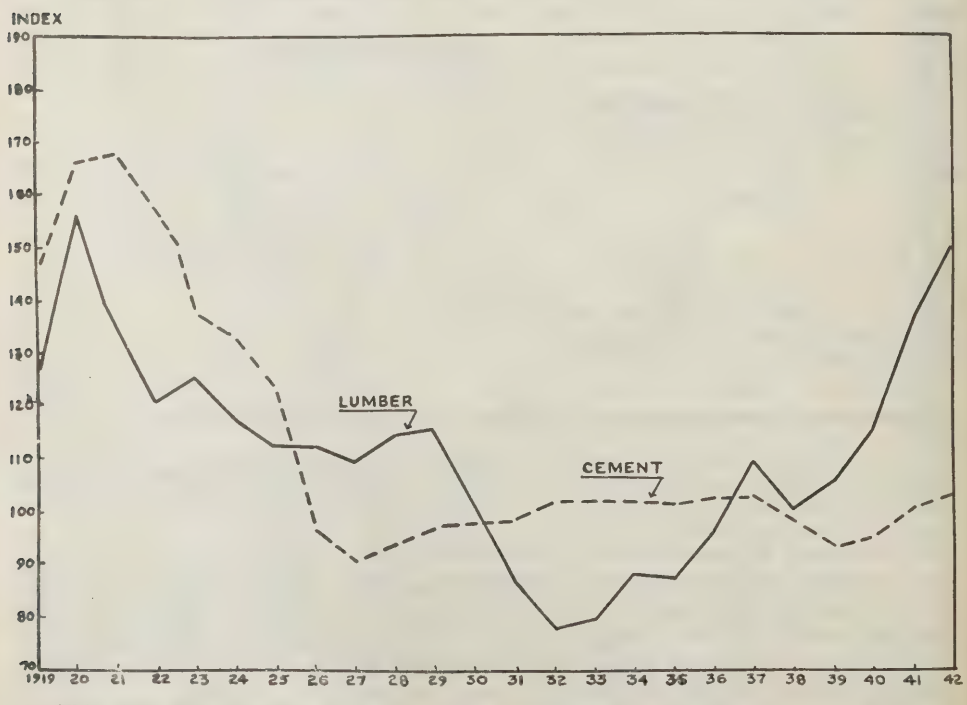
Rates and Earnings of Construction Workers. Indices of real hourly rates and earnings are shown in the accompanying table. Both indices are divided by the cost of living index, thus providing a set of figures which take into account changes in the cost of living. For the purpose of comparison, real hourly rates of common factory labour are also given. It is desirable to separate the war period since 1939 from the other years.

Clearly high hourly rates do not mean necessarily a high annual income. In an occupation so irregular as the building trades, the number of man-hours worked during the year is a much weightier determinant of total income. Thus, for example, when real hourly rates were low in 1921 (75·3), real average earnings were high (107·9). In 1931, however, wage rates were high (108·6) but earnings were low (80·6). This is not to say that annual earnings of construction workers are of necessity high if hourly rates are low. In 1938, hourly rates were only slightly lower (100·3), than in 1931, but real earnings were up considerably (107·3) as compared with 1931. This was to some degree due to the extension of the working year as the result of national housing legislation which stimulated new residential construction, improvements, and repairs of homes by the public at large. As can be seen from the accompanying chart (Figure 8), the pattern of real average earnings of wage-earners in the construction industry for the period 1919-1938 is roughly reversed from that of real hourly rates. On the other hand, the real rates paid to common factory labour moved practically uninterruptedly upwards.

Building costs have gone up substantially since the outbreak of war. The claim is often made that this is mainly due to a steep rise in the hourly rates of construction workers. Admittedly their wage rates have risen since the outbreak of war, particularly where the need for such workers has been great because of the speed with which certain types of war construction projects had to be completed. But if the index of hourly rates can be taken as indicative there is no evidence that the rise was disproportionate to the rise of cost of living. On the contrary, *real* hourly rates of wage-earners in the construction industry were slightly lower in 1942 (the index shows 101·2) than in 1939 (101·8). A somewhat different picture is presented by the index of building material costs which indicates a rise of 29 points for the period 1939-1942. (See Figure 9).

FIGURE 9

TRENDS OF WHOLESALE PRICES OF LUMBER AND CEMENT, 1919-1942



This chart shows indices of wholesale prices of lumber and cement, Canada, 1919-1942. (For sources of statistics, see Table 61.) Base of index: 1935-1939=100.

Costs and Volume of Building Materials. The composite index of building materials appears to be flexible enough, showing a drop of 25 points in the course of three years (1929-1932). But prices of certain items like lumber and shingles dropped much more during the same period, namely 29 and 53 points, respectively, while prices of cement actually rose showing a gain of 5 points, and prices of bricks fell only slightly, (2·5 points).

The price resistance of certain building materials depends on the degree of competition or monopoly, the character of the demand, and the extent to which the industry is sheltered. The price of lumber, influenced not only by domestic demands but also by competition of other exporting countries, fluctuated considerably; the cement and brick industries, serving mainly domestic and sheltered markets were able to maintain prices. Admittedly, the volume of sales of bricks and cement went down during the depression years, but those who needed these types of materials had to buy them at disproportionate prices compared with other types of building materials.

TABLE 60.—INDICES OF REAL EARNINGS AND HOURLY RATES OF WAGE-EARNERS IN THE CONSTRUCTION INDUSTRY AND COMMON FACTORY LABOUR, COSTS AND PHYSICAL VOLUME OF BUILDING MATERIALS, CANADA, 1919-1942.

Year	Wage-earners in the construction industry		Common factory labour real hourly rates [1]	Building materials	
	Real average earnings[1]	Real hourly rates [1]		Cost	Volume[2]
1919	88·7	70·9	74·9	134·0	128·6
1920	107·9	75·3	77·9	163·7	145·4
1921	107·2	79·4	77·1	139·5	124·4
1922	92·0	81·7	79·9	123·6	129·9
1923	95·0	83·4	79·1	127·2	130·9
1924	97·1	86·4	81·1	121·2	142·7
1925	92·9	86·1	81·7	117·0	143·3
1926	76·9	85·6	80·9	113·7	165·4
1927	77·8	90·5	82·3	109·3	185·5
1928	78·0	93·2	81·7	110·8	205·7
1929	81·9	98·3	81·1	112·6	229·8
1930	86·7	101·8	81·9	103·3	191·8
1931	80·6	108·6	88·4	93·1	159·1
1932	97·5	109·0	92·2	87·8	78·8
1933	91·5	101·3	93·6	89·0	54·0
1934	76·5	98·0	93·9	93·8	75·0
1935	80·8	100·5	95·6	92·3	75·6
1936	87·5	99·2	96·3	97·0	87·8
1937	112·0	98·9	101·6	107·3	119·2
1938	107·3	100·3	102·7	101·3	110·4
1939	111·8	101·8	104·3	102·0	107·1
1940	132·3	100·1	103·7	108·7	136·7
1941	137·8	100·0	109·6	122·0	—
1942	148·4	101·2	113·6	130·9	—

Source: Table by courtesy of Business Statistics Branch, Dominion Bureau of Statistics. Base of indices: 1935-1939=100.

[1] Real avreage earnings and real hourly ratees have been computed by dividing actual earnings and rates by the cost of living index.

[2] The index of the volume of building materials is based on the weighted internal supply of lumber, shingles, cement and brick.

The war period shows a reversion of the trend in prices of various building materials. Prices of lumber and shingles went up rather steeply, while gains in cement and brick were moderate. This is partly explained by the heavy demand for lumber and timber at home and abroad. A great number of temporary

buildings, barracks, offices and houses, erected in the course of the last few years, made substantial demand on Canadian lumber resources and the rise in prices was a consequence.

To supplement the figures assembled for illustration here, interesting information is supplied by the index of the volume of production of building materials (based on the weighted internal supply of lumber, shingles, cement and brick).[1] The volume of business in these building materials dropped so considerably in the 'thirties that, for example, business in 1933 was about one-quarter of that in 1929. This is another piece of evidence of the disastrous effect which the slump in building activity during the 'thirties had upon the industries supplying materials. As the index shows, the recovery of these industries was slow and hesitant, and not even by 1940 had the high level of the 'twenties been reached.

TABLE 61.—INDICES OF WHOLESALE PRICES OF FOUR CLASSES OF BUILDING MATERIALS, CANADA, 1919-1942

Year	Lumber	Shingles	Cement	Brick	Composite index of building materials
1919	123·8	135·5	143·9	81·7	134·0
1920	155·9	172·1	166·0	105·8	163·7
1921	136·0	106·4	168·4	105·0	139·5
1922	121·1	114·6	153·3	105·5	123·6
1923	125·7	105·0	138·2	107·8	137·2
1924	117·5	96·4	132·9	114·5	121·2
1925	112·8	106·7	123·8	114·5	117·0
1926	112·1	104·2	96·8	114·5	113·7
1927	109·3	100·9	91·0	118·1	109·3
1928	114·7	116·9	93·9	119·0	110·8
1929	116·0	123·0	97·0	117·6	112·6
1930	101·0	85·4	97·6	116·3	103·3
1931	86·8	70·3	99·0	115·1	93·1
1932	77·1	70·4	101·9	115·1	87·8
1933	79·4	86·6	102·1	114·8	89·0
1934	88·1	66·0	101·8	109·6	93·8
1935	87·2	79·7	101·8	101·3	92·3
1936	96·7	97·1	102·4	100·8	97·0
1937	110·0	106·7	102·8	100·7	107·3
1938	100·7	97·9	99·1	98·5	101·3
1939	105·4	118·7	93·6	98·5	102·0
1940	116·1	121·5	95·3	99·1	108·7
1941	135·2	148·1	100·8	107·3	122·0
1942	149·1	182·5	103·1	111·8	130·9

Source: Table compiled from *Prices and Price Index,* annual reports, Internal Trade Branch, Dominion Bureau of Statistics, 1919-1941. The figures for 1942 are preliminary and have been made available by courtesy of the Internal Trade Branch. Wholesale price records include representative quotations of a wide range of commodities in basic markets. Base of index: 1935-1939=100.

[1] This index shows the volume of production of the items enumerated, adjusted for exports and imports. It can only be used as a rough measurement of business activity because it does not allow for changes in inventories.

APPENDIX C

RENTAL CONTROL IN CANADA

The First Year

General power to control rentals was first specifically given to the Wartime Prices and Trade Board, by an Order in Council (under the War Measures Act) of September 11, 1940, which brought housing accommodation within the meaning of the term "necessary of life". Action was taken on September 24 (Order in Council 5003) when Mr. Justice W. M. Martin of the Supreme Court of Saskatchewan was appointed Rentals Administrator and the Wartime Prices and Trade Board was empowered to fix rentals, define conditions of leasing, etc., appoint administrators, advisers, etc., and in general make regulations or orders for the control of the housing market in such areas within Canada as it should from time to time designate. The setting up of local committees in the controlled areas was also undertaken, for the purpose of investigating and adjudicating upon local complaints and applications respecting rentals and housing accommodation.

From time to time the Wartime Prices and Trade Board promulgated orders under this general authority. Some of them, such as Nos. 7, 15, 32, and 37 were (with amending orders) what might be called basic orders. The balance were routine orders setting up local committees or bringing new areas under control. In general the basic orders fell into two classes, those guiding the courts with respect to landlord and tenant relationship, and those for the guidance of committees, landlords and tenants with respect to the establishment of maximum controls.

The first basic order (No. 7, September 24, 1940) established the first set of conditions controlling rentals. It was entirely administrative in character and not for the guidance of the courts. It defined the various terms used, e.g., housing accommodation, landlord, rental, etc. Housing accommodation was made to include only quarters used for human habitation including all appurtenances (heat, water, etc.) supplied by the landlord. It listed 15 localities in Nova Scotia, Quebec, Ontario, Manitoba, and in British Columbia to which the order applied. In these areas the maximum rental which could be charged was that in effect on January 2, 1940, or if there was no tenancy then the rental charged in 1939. In other cases the Rentals Administrator had power to set the maximum rental. Power was given the Administrator to vary the maximum rental in specified cases where special circumstances existed; this action could be initiated by the Administrator or upon the application of the landlord or the tenant. The Administrator could require information in such form as he designated and all decisions by him were to be final and conclusive. In addition no tenant could be evicted for failure to pay a rental in excess of the maximum or the one set by the Administrator, or in situations where the rental had not yet been decided. Further, the tenant had the right of recovery of any sums paid in excess of the maximum.

Rentals committees were set up in each of the controlled areas. There were usually three members, one representing the tenant interest, one the owner interest, and the third (frequently the county judge) as chairman. Two members constituted a quorum. The local rentals committees were authorized to investigate local complaints against the rental order, to obtain information and examine records, and to set their own procedure. Any judgment given in any particular case was not final until approved of by the Rentals Administrator.

A number of areas and regions were added from time to time, and local committees set up throughout 1941, as complaints came in from many districts. The Board usually reviewed the local situation and in light of its conclusions included or rejected the areas for control. Most of the communities selected had had their population swollen by the establishment of military, naval, or airforce centres, or munitions or war industries nearby.

Order No. 15 (November 19, 1940) entitled "Regulations for the Eviction of Tenants", established rules on this subject for the guidance of the courts. It attempted to codify the Board's regulations respecting certain tenant and landlord relationships, and in particular dealt with renewals and expiry of leases. It provided that a tenant could continue in occupancy by giving notice in terms of the proposed period of tenure, and that in one absence of mutual contract the tenant's lease was continued relative to the terms (months, years, etc.) in which it had originally been drawn. The conditions under which a landlord could evict a tenant were set down in detail. (These have been reproduced in a footnote in Chapter 1). The order also stated the procedure for a landlord desiring legally to repossess his property, the terms and kind of notice required. In addition there was a specific prohibition on tenants waiving any right acquired under the rental control regulations.

In February, 1941, specific meaning was given to the term "special circumstances". Order 32, for the guidance of the local Committees, landlords and tenants, set out in detail the conditions covered by the term. The relevant sections of the order are important enough for full quotation:

"No application for a variation of the maximum rental fixed by or under the provisions of any Order of the Board shall be considered unless the variation applied for is by reason of one or more of the following special circumstances affecting the particular housing accommodation to which such maximum rental applies.

(*a*) A substantial change, since the basic date, in the taxes on real property, in mortgage interest rates, in insurance premiums, or in the costs of services, payable by the landlord;

(*b*) a substantial change, since the basic date, in the cost of heating if the landlord supplies heat;

(*c*) a substantial expenditure, since the basic date, upon a structural alteration or addition or upon an improvement;

(*d*) a substantial increase, since the basic date, in wear and tear, for which the tenant is responsible;

(*e*) a substantial difference between the rental in effect on the basic date and the rental generally prevailing on the basic date for similar housing accommodation in similar localities of the particular municipality.

(*f*) a mutual written agreement between landlord and tenant entered into hereafter by reason of the existence of one or more of the circumstances referred to in any of clauses (*a*) to (*e*) hereof and specified in such agreement."

The important clause (*e*) in the tabulation above was amended by Order 34, by an addition which took account of a situation where the basic rental was low and "was a concession of exceptional nature to the tenant".

Regulations respecting the termination of leases were set out again in Order 37 (March 28, 1941) which repealed previous relevant orders. The general principles laid down in preceding Order 15, as to the conditions under which the landlord could repossess a property, were amplified. The details need not be reproduced, but it is important to note that it was entirely concerned with setting up rules for the guidance of the courts. It was in effect a set of rules, made necessary by rental control, to supplement or supersede the law of the province in respect to termination of leases and evictions of tenants. A subsequent Order (54) authorized consideration of cases where the quality of accommodation had deteriorated.

The General Price Ceiling (October, 1941)

With the introduction of a general price ceiling on November 21, 1941, selective controls of rents was ended, and all rentals came under the "ceiling". By P.C. 9029 of this date, all real property other than farm land was brought under the Wartime Leasehold Regulations.[1] Order 74, which was effective December 30, 1941, brought these together: substantially this followed in principle the previous orders, which had been applicable only to specially designated areas. In general, this order provided that the maximum rental which might be charged for any housing accommodation was the rental in effect on October 11, 1941, with the exception that housing rentals already under control retained their previous basic dates.

The Board was empowered (1) to investigate rentals, (2) to fix maximum rentals and prescribe the manner of their determination, (3) to prescribe grounds on which maximum rentals may be varied and leases terminated, (4) to appoint or authorize the Rentals Administrator to appoint a local committee in any area of Canada to investigate and adjust local applications and complaints in respect of real property, and (5) to require landlords to furnish such information as it deems necessary.

The circumstances which justified the landlord in applying for permission to increase the rental charged were also itemized, and fell mainly under four headings: (i) substantial increases in taxes on the property; (ii) added service not previously given by the landlord; (iii) substantial structural alterations; and (iv) lower fixed rent than generally prevailing because of a concession of an exceptional nature.

Tenants were given security of tenure, and the situation in which landlords might give notice to vacate were prescribed. These reasons included nonpayment of rent, subdivisions of premises into additional housing units, expected occupation by landlord or some member of his family or an employee, sale for vacant possession, conversion into business premises and demolition.

Judges, or acting judges, of County or District courts were appointed Rentals Committees of one except in the Province of Quebec where judges or magistrates were to be specially appointed in collaboration with the provincial authorities. Reorganization of the machinery for the administration of rent control took place at the same time. An Administrator of Rental Appeals was appointed to pass on appeals from decisions of the county judges or other local rentals committees. Jurisdiction over the two main sections of the work was divided between an Administrator of Commercial Rentals and an Administrator of Housing Rentals.

After several months of operation of nation-wide rental control new regulations (Board Order 108) were announced towards the end of April, 1942. The changes were chiefly designed to reinforce the security of the tenant, tighten up existing controls and provide for certain situations not completely covered in previous orders. Landlords were required to give a minimum of three months' notice on all notices to vacate where occupancy was for one month or longer under a written or oral lease. (Boarding and rooming houses, and hotel accommodation, were exempted from this provision and remained governed by the appropriate provincial laws.) In addition an owner or purchaser who required the accommodation for himself or his family had to give reasonable proof in Court that he needed it when giving notice to vacate, and to undertake to live in the vacated premises for one year.

[1] Formerly only housing accommodation had been subject to the Board's rental regulations but now control was taken over all commercial as well as residential premises. The inclusion of restaurant meals under the price ceiling and the control of room rents brought boarding house charges under the new regulations. A number of subsequent orders related to boarding houses, hotels, etc.; these, as well as the commercial property regulations, are not covered in the present memorandum.

In December, 1942, the Board decided that unnecessary moving would be lessened, enforcement of rental regulations promoted, and further increase in overcrowding to some extent, discouraged, without undue interference with the rights of existing landlords, by the adoption of a measure to give additional security to existing tenants. This was accomplished by requiring that any new purchaser seeking possession of a tenanted dwelling which he had bought on or after December 10, 1942, might dispossess the tenant only by giving him at least 12 months' notice to vacate, showing that the new owner needed the accommodation for his personal occupancy and undertaking that he will personally occupy the accommodation when vacated by the tenant, for at least one year. The tenant, on his part, was obligated to agree in writing, within 15 days of his receiving the notice to vacate, to stay in possession for the full term of twelve months. Unless he furnished this statement the tenant was required to vacate at the end of his lease or after three months, whichever is the later date. Where housing accommodation was required for demolition or conversion into business premises it is now necessary for the landlord to obtain the permission in writing of the Real Property Administrator before giving notice to the tenant to vacate.

Order No. 108 also made some changes in the regulations governing the variation of maximum rentals. Provision was made whereby it was necessary for a landlord to give to the tenant a statement showing the maximum legal rent for the premises on the occasion of a new lease, or renewal of lease with a change of rental or service supplied, filing a copy with the local office of the Rentals Administration. (Boarding house operators and hotel and tourist home proprietors were also required to post statement showing maximum rentals). Jurisdiction of the Rentals Administrators was put on a regional rather than functional basis, one administrator taking over Quebec and the Maritimes, and the other Ontario, the Prairie Provinces and British Columbia.

In December, 1942, provision was made for a tightening of the control exercised over the rentals charged for new accommodation, or accommodation which is rental for the first time after December 10, 1942. Application for the fixing of such rentals was to be made to the local rent committee within 30 days after the signing of the lease. The chief consideration in such cases was to be the prevailing level of rents for similar accommodation in the same neighbourhood on October 11, 1941.

Current Rental Administration Changes (October, 1943)

After October, 1943, regulations covering housing and rooming, hotels, and commercial accommodation, were separately revised and published as three separate orders. Only the first is summarized here.

Board Order 294, dealing with ordinary housing and "shared" accommodation, revised the administrative machinery, the regulations governing changes in maximum rentals, and the conditions respecting the termination of leases.

The administration of the regulations was put into the hands of rentals appraisers, appointed for different areas, who replace the former rentals committees. These committees each consisted of a county court or district court judge who had the task of determining and varying maximum rentals. The rentals appraisers were full time officials who devote their whole time to the administration of the rentals ceiling, including inspection of any accommodation concerned and adjoining properties.

The machinery for appeals was decentralized, the single Administrator of Rental Appeals being replaced by a number of regional Courts of Rental Appeals whose decisions are not subject to appeal to any higher authority. In smaller communities no rentals appraiser is appointed, and the Court of Rental Appeals directly replaces the rentals committee. Each Court of Rental Appeals consists of one judge, judicial officer or barrister.

Maximum Rentals (Housing Accommodation)

Among the changes in the regulations governing the variation of maximum rentals for housing accommodation were provisions designed to ensure that rentals varied in accordance with the services provided. The order prohibits the lessening or discontinuance of heating, lighting or hot and cold water services supplied by the landlord, unless a permit is obtained from the rentals appraiser or unless this reduction of services is due to a government order or to fuel not being available.

When reducing the amount of the accommodation or any service connected with it a landlord is required to apply for a reduction of the maximum rental. The tenant may apply for a reduction in maximum rental, (1) if there was no maximum rent as of October 11, 1941, and if the rental set by the landlord since then is higher than the rental generally prevailing on that date for similar accommodation in the neighbourhood, and (2) if there has been any lessening of the accommodation or services. Under order No. 108 the tenant had also been able to apply for a decrease if the landlord's taxes or rates had decreased.

Some changes were made in the grounds on which an increase in the maximum rental could be sought. Under order No. 108, as amended, an increase could be applied for on the grounds of increased wear and tear, higher taxes or rates, additional services, structural alterations, expenditures on repairs or decorations above those ordinarily incurred, or, under certain conditions, if the rental was lower than that generally prevailing on the basic date for similar accommodation in the neighbourhood. Under the new regulations an increase on the ground that rents for similar accommodation are higher can only be applied for in the case of a dwelling unit in a multiple family house, in which similar units are let at a higher rental. "Wear and tear" is no longer regarded as a valid reason for seeking an increase. However, under certain conditions an increase may be applied for if the tenant is subletting more than two rooms, and was not doing so when the maximum rental was last fixed. In this case, the appraiser may raise the maximum rental by ten per cent. Another new condition on which an application for an increase in maximum rental may be based is if the maximum rental for one year is less than twice the total of taxes and water rates payable by the landlord.

Termination of Leases

Regulations governing the termination of leases were simplified in the new order, and adjustments were made to reduce inconvenience caused to both landlords and tenants. Under both the old and the new regulations certain special classes of tenants are not protected by the special rights of tenure conferred by the regulations, and their leases are governed by provincial law. Tenants holding weekly leases were in this group under the old regulations, but the protection against eviction was extended to them under Board Order No. 294. The new regulations provide that an "obnoxious" tenant whose conduct does not amount to a breach of a material provision of his lease can only be dispossessed under provincial law if a Court of Rental Appeals rules that his lease be exempted from the provisions of the order.

Under Order No. 108 as amended there were a variety of reasons for which tenants protected by the regulations could be required to vacate. These are reduced to two under the new order: (1) If the landlord desires the accommodation as a residence for himself or members of his family for a period of at least one year; and (2) if the landlord desires possession of the accommodation for the purpose of subdividing it so as to accommodate more persons.

Under the old regulations the length of the notice to vacate required in these cases was (except for periodic yearly tenancies in Ontario) three months, unless a landlord who had purchased the accommodation after December 10, 1942, wanted to live in the accommodation, in which case twelve months' notice was required. The new order provides for a minimum of six months' notice if the landlord desires the accommodation for himself or his family, and three months' notice if he wishes to subdivide it. It is further provided that in the case of a monthly or weekly lease the notice to vacate is not to terminate in the winter, that is between September 30 and the following April 30. In the case of half-yearly or longer leases, notice to vacate must be given at the appropriate time prior to the termination of the lease, and the tenant vacates at the end of his lease term.

While formerly a landlord serving a notice to vacate could be required to prove his case in court, he is freed from this requirement under the new regulations. However, if he requires the accommodation for his own use or that of his family he is not permitted to sell or rent it for a year, without the permission of the rentals appraiser. If he intends to subdivide the accommodation he must first obtain a permit from the rentals appraiser, and may not rent or sell the accommodation until the subdivision is complete.

After Board Order No. 294 came into effect many notices to vacate were given to tenants in multiple family buildings in Montreal on the grounds that the landlord desired the accommodation for himself or a member of his family. The number of notices in areas of acute housing shortage caused unnecessary distress. Accordingly an order passed on January 4, 1944, invalidated, with certain exceptions, all notices to vacate accommodation in multiple family buildings when the notices were based on a landlord's desire to use the accommodation for himself or his family. Exceptions were made in the case of a landlord living in rented accommodation and wishing to move into his own building and in the case of a landlord wanting to move from a single family house to an apartment.

Rooming Accommodation

The increasing demand for rooming accommodation in areas whose population had increased owing to the war made it necessary to make special provisions for controlling rates charged for rooming accommodation since the general "basic period" freeze was not sufficiently effective. An order passed in November, 1942, provided for the appointment of a "local examiner" in certain particularly congested areas (such as Halifax, Montreal, Kingston), to fix rentals for rooming accommodation and to issue "maximum rate cards" that must be displayed in all rooming accommodation offered for rent.

Order No. 294 now regulates maximum rentals for rooming accommodation in all areas not covered by special orders. No provisions are made for the protection of tenants against eviction which remains subject to provincial law.

Rooming accommodation, described as "shared accommodation" in the order, is defined as accommodation the tenants of which share the entrance door and any facility, such as a bathroom, with the landlord. The order provides that shared accommodation may only be let on a "per person" basis if bedding, linen and the laundering thereof are provided by the landlord. Shared accommodation let as a unit, and not at a rate per person, is governed as to maximum rentals by the regulations established for housing accommodation. "Per person" rates, on the other hand, must not exceed those in force on July 1, 1943, or, where no "per person" rates were in effect at that date, they must not exceed the rates first charged by the landlord after July 1, 1943. A landlord can apply for an increase in maximum rates if they are lower than those generally prevailing

for similar accommodation in the neighbourhood, or if he is supplying any additional furniture, services, meals or other facilities. Conversely, a tenant may apply for a decrease if comparable rates are lower or services or furnishings are reduced.

Assistance in Finding Accommodation

Wartime demands for material and labour having severely restricted new housing construction, the Wartime Prices and Trade Board was instructed in 1942 to take measures to ensure that the most effective use was made of existing housing accommodation. To provide the Board with the necessary legal powers to carry out the policy, the Wartime Leasehold Regulations were amended. In October, 1942, a Real Property Administrator was appointed and charged with the carrying out of this section of the Board's regulations and the co-ordination of rental administration. Voluntary local campaigns were organized through the Consumer Branch of the Board working with its Women's Regional Advisory Committees and other interested bodies. Housing Registries have been set up in 29 cities at which householders are invited to register their available rooms and prospective tenants are urged to apply for needed accommodation.

To facilitate the carrying out of these measures the Real Property Administrator was given authority to make surveys of the availability of and demand for housing accommodation in any part of the country. Provision was made for the suspension in certain designated congested areas of any barriers to the letting or subletting of space, whether such barriers had been set up by municipal authorities or by owners, in a written lease or otherwise. Some 100 areas have been named as congested areas, including most places where military camps or munitions works are situated as well as large industrial centres. Compulsory surveys have been carried on in Windsor, Sarnia, Kingston, St. Catharines, Brandon, and Ottawa, and are conducted in other areas as the need arises. In Toronto the conversion of houses into multiple family units has been facilitated by a number of administrator's orders. In some places the city council has appointed a Special Committee on Residence Conversion and in those cases where a conversion is obstructed by municipal by-laws, and the value of real property in the neighbourhood would not be affected by the conversion, the Special Committee and the Real Property Administrator have agreed that the obstructing by-law should be rendered inoperative by an administrator's order.

On September 1, 1943, the Real Property Administration issued an appeal to those working in "deficiency housing areas" not to bring their families with them since the shortage of family dwelling units is considerably more acute than the shortage of single rooms. The administrator pointed out that if conditions become worse it might be necessary to restrict the movement of families to deficiency areas.

APPENDIX D

WARTIME HOUSING LIMITED

Organization

Wartime Housing Limited, a wholly-owned Crown Company, was incorporated under Order in Council P.C. 1286 on February 24, 1941. The Company was incorporated for the purpose of supplying living accommodation for war workers in those centres where the production of munitions, the building of ships, and other defence projects, had created a housing shortage.

At the time the Company was created there was a very serious problem existing in most of these centres, and demands for relief came from one end of the country to the other. In some cases the request for help came from the industries concerned who were unable to staff their plants, and in other cases from the municipalities who found themselves unable to cope with the demand for housing occasioned by the influx of workers and their families. In all cases, agents of the Company were sent to investigate, and made careful surveys as to the necessity. Based on their reports, the Company made recommendations to the government and asked for the funds, and when the funds were made available the projects were let by tender and the work carried out with all possible speed.

The Company had to determine in the first days of its existence the type of house which it proposed to furnish. They had at their disposal a great many sets of plans and proposals from concerns anxious to manufacture portable houses, and many alternative designs by authorities on Industrial Housing. The Company, through its own architectural and engineering staff, developed preliminary plans and specifications, which were passed upon, and revised somewhat, by an independent committee of authorities on the subject; these, in turn, were approved by the Province of Quebec Association of Architects, and by the Royal Architectural Institute of Canada, and by Heating and Sanitary Engineers.

Once the standard plans were adopted, it was possible to standardize the details of construction and to realize the economies that would be affected by such standardization and repetition. The Company was able to make wholesale purchases of materials in large quantities and at prices that had been largely negotiated by the Department of Munitions and Supply for the Government. In addition to this, they were able to get national prices for plumbing, mill work and the like. All of this information was made available to contractors tendering on the projects so that the full force of the economies which had been thus worked out was reflected in the prices tendered.

The Company also organized a field force of its own for two purposes: (*a*) to construct by its own force housing projects where satisfactory tenders were not obtainable, and (*b*) to keep themselves informed, by actual contact with field conditions, of further economies with methods and materials, and possible changes in plans.

In each centre where housing projects were constructed a small Committee, composed of outstanding public-spirited men, was set up to act as a small Board of Directors, under which an Administrator and staff was set up to administer and maintain the properties.

Wartime Housing Limited has given careful attention to two very important aspects of new housing communities. (*a*) They have landscaped the

surroundings and provided lawns, shrubs and trees. (*b*) They have set up a Department of Tenant-Relations and have through this Department promoted community interests among the tenants on a sizable scale, the results of which have been very satisfactory.

Types and Rents

The Company, as at October 1, 1943, had been in existence for two years and 8½ months, and up to this date had expended $58,798,007.02, made up as follows:

(*a*)	House construction	$37,469,984.56
	Other buildings	7,271,919.68
(*b*)	Services	10,381,288.61
(*c*)	Land purchases	957,649.63
	Architects' fees	312,454.81
	Equipment	2,404,709.73

For the 4-bedroom houses (totalling 5,243), the average cost works out at $2,680.71; and for the 2-bedroom houses (totalling 11,711), $1,982.25.

As at October 1, 1943, the Company had constructed 16,954 houses of different types and 180 other buildings.[1] The number of people housed totalled 89,645, and there were 67 Committees, Boards of Directors or Administrators' offices actively engaged in managing the properties.

TABLE 62.—RENTALS PREVIOUSLY PAID BY TENANTS OF WARTIME HOUSING UNITS IN FIVE SELECTED CITIES

Rental	Combined 5 cities	Halifax (1)	Peterborough	Hamilton	Windsor (2)	North Vancouver
Up to $20	285	56	77	57	57	38
$21–$25	186	18	28	44	39	57
$26–$30	102	11	18	22	24	27
$31–$35	39	8	6	11	—	14
Over $35	42	7	7	14	—	14
Total	654	100	136	148	120	150
	Percentage Distribution					
Up to $20	43·6	56·0	56·7	38·5	47·5	25·3
$21–$25	28·4	18·0	20·6	29·7	32·5	38·1
$26–$30	15·6	11·0	13·2	14·9	20·0	18·0
$31–$35	6·0	8·0	4·4	7·4	—	9·3
Over $35	6·4	7·0	5·1	9·5	—	9·3
Total	100·0	100·0	100·0	100·0	100·0	100·0

Source: Material supplied from sample studies by courtesy of Wartime Housing Limited.

(1) Including Dartmouth and Eastern Passage.

(2) For Windsor, the first rental group includes rents up to and including $22; the second, rents from $23 to $25.

Studies were made in the early days of the Company to arrive at the rents that were to be charged for the several types of houses that had been adopted as standard. However, it was found that, regardless of what the studies proved, it was of the greatest importance that the rents charged should be in line with the market for such accommodation. The Company and the government would be

[1] These were made up as follows: staff houses or dormitories, 63; dining halls, 17; hostels for large numbers, 14; bunk-houses, 17; schools, 21; special related buildings, 48.

in a difficult position if the rents charged were too high, and it would be in a difficult position, for another set of reasons, if the rents were too low. The studies, therefore, which established the rentals were studies of the rental markets. The Company then took these rentals and worked back from them to see what the effect would be as to possible write-off after operating expense.

Two types of houses were adopted. One was a bungalow with two bedrooms, and the other was a somewhat larger house with four bedrooms, two of which were on the second floor. (A third type, which is a slightly larger bungalow, but with the same number of rooms, is also in use.)

The rents were established principally at $22, $25 and $30 according to type and size. The rents were higher in Prince Rupert, B.C., and in certain points in certain points in Nova Scotia, because of the high cost of construction, and the rents were low in North Vancouver because, due to the mildness of the climate and the low cost of lumber and mill work, the construction was cheaper.

Sample studies show that a substantial proportion of the tenants had paid lower rents for their former quarters (or before moving into the new areas), something like 20-30 per cent had paid the same, and about one-eighth on the average had paid more.

Costs, Taxes and Municipal Arrangements.

An application of the most typical rents to the capital involved indicates that if no interest were charged, and if an allowance of $1,000 per house is set up for the value of the house at the end of 10 years, the balance of the cost of the house could be written off in the same period.

Any attempt to treat figures of this kind on Wartime Housing as a reference in regard to housing in general, however, should be made with care. There are a number of unusual factors in the situation so that costs, rents, taxes, etc., have to be viewed in the light of them. Some of these may be illustrated.

The question has often been asked why the houses were not built permanently simply by adding a basement and other necessary features. The accommodation constructed by Wartime Housing Limited had to be designed so that while it involved as small an investment as possible on the part of the government, it was still acceptable, not only to the families of skilled mechanics who came largely from good homes, but also to the residents of the municipalities whose neighbours they were to be. In consequence, the houses are substantial; every endeavour was made to produce properly insulated, carefully planned and desirable homes. They are, however, temporary in this respect: that they have no basements and that they are heated by stoves. If basements were to be installed under them and small furnaces provided, they could undoubtedly serve as good permanent homes. The Parliamentary Committee of the House of Commons in its report of July 16, 1942, stated: "Undoubtedly heavy losses will occur when the problem of salvaging these wartime houses arises. It believes this problem should be carefully studied, and that it may be possible to increase the salvage value substantially by the sale of houses and lots to owners who will turn them into permanent homes by building basements underneath them."

Governmental policy in this matter, which was announced at the time the Company was set up, was to the effect that the housing was temporary; it was being provided to take care of the shifting industrial population involved in the production of munitions of war, and would be removed as soon as possible after hostilities had ceased. There was a general acceptance of this policy at that time. There is, however, accumulating now a considerable expression of view from many of the most important municipalities in favour of the retention of the houses. This is a matter that will undoubtedly find many strong and

interested supporters both for and against. It would appear, however, that regardless of the merits of the question, due to the serious shortage of houses in Canada at the present time, in most of these municipalities some time must elapse after the cessation of hostilities before a start can be made in the removal of these houses, since they will be badly needed.

Reference has been made elsewhere (Chapter 1) to the necessity of installing all services in many areas where improved land was not available, and new acreage had to be acquired. Because of the money that was spent on underground facilities in these properties, it was necessary that the government should own the land; and it is assumed that at the termination of the use of this housing, the properties will be sold as improved lots and a substantial portion of their costs be returned to the government. The rental income, therefore, is applicable to the value of the buildings only, the treatment of the other assets being as yet a matter that can only be determined when disposition is made of the properties.

As properties owned by the Crown ordinarily pay no local taxes, the question of the compensation for services was settled by negotiation. Because the houses were temporary, and because of the large capital outlay on services, which would normally be the obligation of the municipality, a special arrangement had to be made as to the sums paid in lieu of the possible right of the municipality to tax the tenant. It was originally agreed in Quebec, and subsequently adopted in the other provinces, that an annual sum of $24 for the smaller house, and $30 for the larger house, would be acceptable for the various services and facilities made available to the tenants by the municipality. Since these were, generally speaking, below the rates paid by other residents and of a different character from most, they had to be the subject of a written agreement between the Crown Company and the municipalities concerned. These agreements are made for the duration of the war and six months thereafter and, for the most part, they require the removal of the houses at the termination of the agreement, "unless by arrangement suitable to the municipality, the same are permitted to remain".

The projects have come into the rent paying stage at various times. Many of them have only been rented during the past year and it is, therefore, very difficult to provide statistics that would be of value in indicating how the income is going to accrue in comparison with the original estimates.

APPENDIX E

CO-OPERATIVE HOUSING

It is important that proper attention be given to the role of co-operative associations within the housing field, and that their nature should be understood. Co-operative organization may be utilized for building or for ownership or for both; in some circumstances it may be applied to tenant housing; it is an excellent medium through which a combination of government assistance and group self-help may be secured; and it may be particularly adaptable to small towns or communities and districts where the procedures of the larger programs of low-cost housing may not be so readily applicable. Besides all this, co-operative techniques have distinct educational and social values which demand support.

In practice there may be considerable difference in the extent to which co-operative principles are applied. Pure or orthodox co-operatives would be conducted according to the ideals of the Rochdale pioneers. On this basis, however, tent or builder would be a member, each member would have one vote, and the group as a whole would own and control the entire organization. This is the system of the credit union, which may well precede or be part of a housing enterprise; and it is clearly suited only to comparatively small groups. The second and most frequent modified type of co-operative housing vests the control in a society or association. The members may or may not possess any large equity in the undertaking, and the amount of co-operative ownership or operation may be correspondingly limited. A further modification of this type may be simply a device for getting houses built with co-operative credit (or co-operative credit plus government assistance), the houses thereafter being owned on a more or less individual basis.

There are few contemporary examples of the first type, although co-operative credit unions have played a part in a number of enterprises which have followed the modified pattern so far as actual house ownership is concerned. There is an excellent instance in Asbestos, Quebec, however, and further possibilities in this province are being contemplated in Sherbrooke, Trois-Rivières and Quebec City. The Asbestos project has followed the organizational pattern developed in Nova Scotia, but the project is unique in that the entire financing has been carried out through a credit union, Union Régionale de Sherbrooke. In the building of the houses also, the workers employ their own labour.

In Montreal (Rosemount) a promising example of community group housing on the Swedish or modified co-operative model has been pioneered by L'Union Economique d'Habitations. The units are single-family homes, but careful attention has been given to community planning in accordance with co-operative ideals. At present (March, 1944) 80 units have been built, 55 are under construction, and 200 more are being planned. The work has been done under Part I of the National Housing Act, but not to the advantage that would have been possible had Part II remained in force.

The most important examples of co-operative housing with provincial governmental assistance are those of Nova Scotia (described below). The example is likely to be followed in other provinces, notably in Alberta, which has a new section in its Buildings Associations Act, setting out the conditions under which ten or more persons may organize co-operative building associations. A Supervisor of Co-operative Activities has been appointed, and informational literature on the subject has been made available, explaining the procedure of setting up co-operative housing associations in detail.

The best known and most extensive house-building on modified co-operative lines is, of course, that of Sweden and Denmark. Here the co-operative societies have utilized their resources for building multi-family houses at extremely low rates of interest. Usually the co-operative building societies retain ownership and control of the apartment units, although the tenants typically engage in a variety of co-operative activities. In the United States a few small co-operative projects have been so devised as to take advantage of the Federal Housing Administration insurance on loans. Some attempts have also been successful in getting co-operative housing estates built without public assistance. Examples are Penncraft, Penn., Oakwood, N.C., Iona, Idaho, Crestwood, Wis., Greenbelt, Md., Glenview, Ill., and others in Minneapolis, St. Paul and Detroit. In some of these, part of the construction has been done by members of the group, or by exchange of labour. In others, private contractors do the construction work under a contract with the co-operative associations. Funds for some were accumulated through credit unions, in one instance by a Quaker organization, in another, Iona, Idaho, through the unused balance of a Federal-State relief fund made available for the experiment, which remains as a revolving fund eligible for other projects as it is returned. None of these groups has carried out the co-operative procedures to the point of collective ownership (which would require that the title to the land and buildings be permanently retained by the Association, and not by the purchasing families). They have, however, by joint effort succeeded in getting constructed well-built homes at moderate cost, for persons who would otherwise have been unable to afford them.

Nova Scotia Legislation and Procedures

Credit for the inauguration of government-aided co-operative housing must go to Nova Scotia. The first move was made in 1937, as a result of interest in the project among the miners of Cape Breton. As the idea took root, other co-operative villages were sponsored, and there are now seven in the province, of which Tompkinsville is probably the best known.

An essential element in these achievements has been the substantial aid given by the provincial government under the Housing Commission Act, first passed in 1932 and since amended. The Commission makes available loans at 3½ per cent on a twenty-year basis. They are limited to 75 per cent of the total cost of each project, and are designated to cover the material used, it being understood that the land and labour must be provided by members of the group themselves. The Nova Scotia legislation does not specifically define a co-operative for housing purposes, but the Commission's regulations require a minimum of ten houses in a project so that for practical purposes a co-operative means a group of at least ten participants. So far (end of 1942), loans have been made to such organizations to the extent of $150,000.

A number of forms of assistance, not necessarily financial in character, have been made. The Act provides exemption from incorporation fees and provincial taxes (though exception from municipal taxes is not part of the requirements). The Commission furnishes free plans, specifications and blueprints; it provides free architectural help and supervision; and gives free legal aid, advisory assistance, and bookkeeping service. Co-operation from other government departments has secured the provision of trees and hedges and assistance with beautification schemes; and has also facilitated the building of roads and the development of community amenities. During the period of construction, free fire insurance and so-called "carpenters' risk" insurance is provided, and all workers on the project are protected by the Workmen's Compensation Act.

The educational features of co-operative house-building naturally hold a very special place. There are actually three stages in the creation of a co-opera-

tive village. The first step is the rounding up of an ambitious group of men who possess energy, strength of purpose and a strong home instinct. They must, of course, be converts to co-operationism; especially must they be impressed with the "fictional advantages" of private ownership as regards a house to live in, and appreciate the increased security which may be enjoyed as "tenant-owners" in a company-held property, when they, the tenants, constitute the company. The second stage is the study-club period when some months are given over to the discussion of the principles of construction, to architectural plans and to the preparation of cardboard models. The final or building stage finds the group engaged in unremitting manual work absorbing all off-hours and evenings for more than a year, the whole project being carried forward by the members of the group (and their wives) working as a crew. Mistakes are made but as time goes on experience becomes pooled and the results more than justify the thesis that workers who are neither carpenters nor plumbers by vocation can, under competent supervision, erect suitable homes for and by themselves.

The houses favoured in Nova Scotia are detached single-family homes. While they are designed for manual workers, their standards are above many of those in existence, and it is estimated that they would sell in the market at from $3,000 to $4,000. They are of frame construction, have seven-foot basements with ten-inch concrete walls, excellent kitchens, living rooms, dining rooms, well-appointed bath-rooms and three (sometimes four) bedrooms. In size the houses are 24 x 26, in some cases larger, and have an average cubage of 16,000 cu. ft. A desirable element of individuality is secured by making possible a choice from twenty or more low-cost-housing designs, which have been prepared by the Commission; while further differences are contributed through variations in gables, porticoes and painting.

The costs of these projects are remarkably low. One project involves monthly amortization payments of only $9.65, inclusive of interest, insurance and taxes. Those built since the beginning of the war range from $14.91 to $16.41 per unit, reflecting the increase in building material costs. The universal experience is that payments are made with punctuality and care. And the program so far has required an administrative cost of less than $5,000 a year. It is important to add that the scale of development is still comparatively small, the total of dwelling units built since the inauguration of the scheme being 81, in seven localities. But there have been so few such experiments elsewhere that it would be hard to overrate the value of the experience gained.

Advantages of Co-operative Techniques

A considerable number of factors contribute to economies which may be realized under co-operative methods. Whether they are all equally valuable or not depends on the section of population and probably the areas to which the principles are applied; but the advantages extend both to single-family home construction and to apartment or group dwellings. They may be listed as follows:—

(*a*) Savings through the group purchase of land. If the group is sufficiently aware of the possibilities, it may develop the area as an estate or community district; and the unification and social control imparted to such areas will almost certainly maintain its economic stability more than an area developed piece-meal or haphazardly. Much will depend, however, on whether land is available in the outer areas of cities or new districts, as contrasted with the difficulties and costs of acquiring land in the interior or blighted areas of the larger cities.

(*b*) Co-operative purchase of materials and equipment can secure better prices. The backing of government credit removes any doubt as to the payments of bills. The intervention of middlemen can be eliminated; also elements in the price margins which would otherwise be required for such matters as selling costs, strike insurance, as well as profit.

(*c*) Costs are reduced through the pooling of labour and the contributions of "self-help" labour. Also since there is less pressure for rapid work, the use of material may be more carefully considered with less waste-end losses.

(*d*) Co-operative techniques may offer savings in administration and maintenance. Direction and superintendence may be supplied free or for nominal amounts. There are no landlords' commissions. Caretakers' costs might in certain circumstances be eliminated (although for a comparatively large program it may be better economy to employ maintenance men). It is a fairly certain calculation that there will be small turnover of tenancy, and a very low vacancy rate. The probabilities are in favour of a lower rate of general depreciation.

It has been estimated that co-operative techniques are able to provide single-family accommodation at 20 per cent less than through other means, and co-operative apartment dwelling facilities to non-tenants at 25 to 40 per cent below prevailing rates. It would be well to keep in mind, however, the differences between small-group projects and large-scale enterprises. For the latter, a proper proportion of management costs should be assumed, although there would naturally be more opportunity for savings through bulk purchase and construction.

There are other advantages to co-operative building than the purely economic ones, however; and indeed many would place them in the forefront. Because of the nature of the undertaking, the period of previous education and preparation, and the environment of the project once it is established, there is a strengthening of the ideals of neighbourliness, self-help and mutual aid. In individualistic house-building, the social value of community effort is neglected, if not actually discouraged. Finally, there are opportunities for residents to take part in some of the managerial functions and in the business activities of house construction and home operation.

Limitations to Co-operative Methods

The essential nucleus of a co-operative venture in the educational and the planning stages is a group of persons with fairly homogeneous interests; and this degree of homogeneity must continue when the dwelling units are built, either as houses in the co-operative estate or as apartments in the same building. This means that owner-tenants must usually be of approximately the same social and economic level. Perhaps because the pressures to get together and combine rather limited resources are greater in small communities, such groups have usually been easier to obtain in the small towns or semi-rural areas. They are more difficult to secure in the larger cities, but there is no basic reason why they should not be established in appropriate sections or districts. It is clear, however, that co-operative housing would not be appropriate for isolated workers, or for workers in highly mobile occupations (the same applies for home ownership in this particular connection); the co-operative techniques require a steady group effort in the planning stages, and at least for some time thereafter.

Co-operative methods have a special appeal for workers whose incomes are such that they would never be able to finance ordinary housebuilding at present rates. There is, however, a limit at some level of the income scale, since a substantial down payment has to be financed, which probably means that unskilled or irregular workers would not be able to take part. Even so, much depends

on the amount of public money which would be available to supplement co-operative financing. There may well be some low-income groups for whom co-operative techniques would provide an alternative to publicly-subsidized low-rent housing.

In general, it is safer to assume that only rather limited sections of the Canadian population are at present ready to organize co-operative house-building enterprises. If the test is the knowledge of co-operative methods and the willingness to work along co-operative lines and to live in houses owned on a community basis, there are distinct limits, because this kind of education is not yet very widespread. However, financial assistance organized to meet co-operative effort part of the way, might extend the range considerably if it were combined with adult education. The building society, which has only a few examples in Canada, would also help, even though this is a considerably modified form of co-operative organization. The individualistic tendencies in prevailing modes of thought, which are nowhere more clearly in operation than in the field of housing, may not seem very flexible. But co-operative housing which shows that it is not doctrinaire in its philosophy, and also that it can fill a need, undoubtedly has opportunities in this country. The modified types of co-operative finance and operation which have been developed in Europe and the United States have been proved adaptable to modern industrial and urban society.

Probably an adequate program for co-operative housing in Canada should be a diversified one. It should make provision for (*a*) single-family homes, particularly adaptable to average communities, (*b*) large apartment units for industrial cities, and (*c*) self-contained neighbourhood communities, accepting the general number of private home ownership, but united on broad co-operative lines.

Recommendations

The development of co-operative housing in Canada depends fundamentally on two things, educational efforts and better facilities for financial assistance.

One of the principal factors militating against more co-operative enterprises is ignorance of the co-operative idea, and the techniques specifically applying to housing in particular. Public appreciation of its value will only come through educational work. There are many channels for this, not all of which have yet been utilized. It should be remembered in this connection that the demonstration provided by successful examples is one of the best forms of education. The more that is known of units that have been built in Canada, such as those in Nova Scotia, the more willingness to do likewise there will be.

House-building being what it is, the inability of co-operative organizations to secure credit has been an even more powerful handicap. Most of the projects which have failed in the United States have done so because of insufficient funds. The few which have succeeded owe their life to the advantageous terms provided by insurance companies or interested sponsors. In the Scandinavian countries huge credit societies, pooling the savings of a co-operative-conscious population, have been able to supply housing loans independently of government aid. But even in Europe some government aid has been the rule rather than the exception. Co-operative organizations have made increasing use of state loans (usually via the municipality) as was possible for example under the Housing Acts in the Netherlands. Were there in existence in Canada large co-operative organizations with accumulated resources, home building might be carried out at a great saving in cost to the government. Under present circumstances, if there is to be any extensive application of the co-operative technique in this country it must be along the lines of publicly-assisted co-operative "self-liquidating" housing.

It seems clear that Dominion funds should in particular be made available where provinces have already enacted enabling legislation for co-operative housing. It is recommended generally that in the redrafting of the National Housing Act there should be special sections permitting the extension of financial-assistance arrangements to co-operative organizations. These might or might not be operating as agencies akin to the local municipal authority recommended elsewhere. They might be concerned with housing of single or multiple type, as indicated above. If mortgage insurance provisions are incorporated in the National Housing Act, housing built by or with the aid of co-operative organizations might very well be a special beneficiary of such provisions. It would, of course, be necessary to have a proper definition of a housing co-operative; and in the provinces where legislation already exists authorizing or protecting the setting up of co-operatives for housing or for other purposes, these definitions could probably be made acceptable. It is necessary, however, that the general principles of co-operative organizations should be set out, and probably that by-laws and general procedures of a bona fide co-operative should be outlined in regulations under the Act. In those provinces in which housing legislation already exists, it should be possible for federal assistance to be extended for the purpose of stimulating co-operative housing enterprises, with the more direct administration of the projects left under provincial auspices.

APPENDIX F

BUILDING SOCIETIES IN BRITAIN

Building societies have played an important role in facilitating house construction in Great Britain, particularly in the inter-war period. The societies had their origin over a century ago in small local collections of borrowers and lenders formed to encourage the building of small dwellings, but now constitute the most representative provider of intermediary for mortgage loans. Apart from their influence on construction itself, the societies have proved a popular form of investment among the middle and industrial classes.[1] In 1939, building and loan societies held no less than half of all the mortgages on property in Great Britain, and by 1941 their assets, which before 1914 had reached £65,000,000, had expanded to approximately £749,000,000. Between 1919 and 1939 nearly £1,350,000,000 was lent by them for the purchase of homes, mostly owner-occupied, and this sum financed a large share of the houses built during those years by unaided private enterprise.

To a person of moderate means the building society provides a safe and convenient medium both for saving money and for borrowing to purchase or build a home (or sometimes to repay a mortgage on a home already owned). The money loaned on mortgage is obtained from the members' subscriptions for shares. Three classes of share capital are usually available. (*a*) Non-redeemable Permanent Shares are entitled to dividends as declared from time to time and transferable under control of the Board of Directors. (*b*) Subscribers' Shares, paid for on the instalment plan, bear interest rates fixed periodically and have a cash surrender value and a loan value after the first year. When paid up these are the basis for a building loan, or they may be converted into permanent shares or paid in cash, at the option of the member. (*c*) Borrowers Shares are allotted to borrowing members, to the extent of the loan plus interest.

The typical balance of debt per mortgage is comparatively small (the average was $2,232 in 1932). Prior to 1933 mortgage advances were for terms varying from 15 to 20 years with an average of 5 to 8 years, and the average rate of interest charged was 4½ or 5 per cent. Under the 1933 Housing Act which discontinued subsidies except for slum clearance purposes, provision was made to aid building societies to become the source of the cheapest form of finance available for the encouragement of private construction. By pooling of resources they were able to advance on mortgage for thirty years, up to 90 per cent of the value of the building (instead of 70 per cent as formerly) and at interest rates one per cent below normal. In addition to loan facilities, a society usually provides an independent valuation of the property, inspects plans and specifications, adjudicates tenders for construction, and provides expert inspection during construction.

The societies are used extensively for savings purposes alone, since they offer safe security, liquidity, and a steady revenue, higher than bank securities. For more than fifty years regular dividends have been paid and reserves consistently built up. Surplus funds are invested in government securities.

Wartime difficulties have been weathered as successfully as the cyclical fluctuations of the past and it would appear that the societies will enter the post-war period well off financially and able to take a full share in the reconstruc-

[1] "Out of every eleven persons in the United Kingdom one appears in the books of the building societies, either as a shareholder, depositor or borrower." *Town and Country Planning*, Faber and Faber, London, 1941, by Gilbert and Elizabeth Glen McAllister. p. 56.

tion program. It should be noted that this share is not expected to clash with the slum clearance and local authority schemes in any way, since these are designed for the lowest paid urban and rural workers, whereas the building societies serve the middle and industrial groups.

The marked influence of the war on the outlook of the societies is revealed by the interim report of the Reconstruction Committee recently appointed by the Building Societies Association. Formerly, the argument was not infrequent that, as a purely financial institution, the responsibility of the building society for standards of site—planning and building did not go beyond careful valuation of the property, refusal to lend on badly-built properties, and advice on improvements in construction. The interim report reflects the changing trend of British opinion in stressing the necessity of improved standards of quality. Among the means suggested by which better standards could be applied are: that site-planning should conform with the requirements of the national plan; that house design should be subject to the approval of local authorities; and that quality of workmanship and materials should be certified by a representative body with statutory powers. The Committee, incidentally, does not confine these recommendations to houses built only under society auspices.

Over the last few decades, consolidation or amalgamation of many of the early societies has proceeded. This trend towards unification is likely to be accelerated by wartime experience. The number of societies, which was 2,088 in 1870, had become 947 by the end of 1941, a movement in which amalgamation was an important factor. Six great societies with branches throughout the country now hold 42 per cent of the total assets. But there are still hundreds of small local societies, many with part time staff, which are without the benefits of modern equipment and methods, and lacking protection from adverse local conditions. Critics suggest that the process of rationalization can be carried a great deal farther without losing the advantages of competition and local knowledge, an opinion which appears to be growing within the movement itself.

In the words of one commentator, "it may be said that the building societies will enter the post-war period with their financial powder dry and in good trim; that they will be willing to accept a much greater degree of responsibility in the task of ensuring 'good' development, design and planning; and that the rationalization movement in that period will make still further progress".[1]

[1] Wincot, H. E., "Building Societies After the War", *The Banker* (London) April, 1943, p. 45.

APPENDIX G

FARM POPULATION

Rural and Farm Population

Since statistics on the farm population are available only from 1931, information on the significance of the rural population as a factor in the development of this Dominion has to suffice for the period prior to 1931. The rural population in Canada comprised about 80 per cent in 1871, about 55 per cent in 1911, about 51 per cent in 1921 and 46 per cent in 1931. The decline of the rural population was arrested somewhat during the last decade, the latter comprising 45 per cent of the total population in 1941. The most important characteristic of recent development is the fact that, although the *rural* population *increased* from 4·8 millions in 1931 to 5·2 millions in 1941 (8·3 per cent), the *farm* population *declined* from 3·29 millions to 3·16 millions, during the same period (4 per cent).

In 1931, for the first time, statistics were compiled on the farm population, the latter being defined to include all those living on farms irrespective of whether these were situated in rural or urban areas. More than 10,000 farms were situated in urban areas (Census urban) in 1931 and about 7,000 in 1941. On the other hand, persons residing in urban or non-incorporated communities who hold tracts of land outside their community, were not included in the farm population because they did not live on their farms. The same applied to day-workers who lived in villages and did not reside on the farm itself. In 1931, the rural population numbered 4·8 millions, consisting of a farm population of 3·3 millions and a rural non-farm group of 1·5 millions. In other words, slightly under one-third of the rural population had no direct connection with farms (a few small groups excepted) and were living in villages and other non-incorporated communities near large urban centres.

The process of urbanization continued during the last decade and was speeded up with the increased industrialization of this country due to the war. A similar trend is noticeable among the rural population with people moving from farms to rural non-farm communities. In 1941, the rural population of 5·2 millions consisted of a farm population of 3·1 millions and a rural non-farm population of 2·1 millions. This means that the rural non-farm group has increased in importance from slightly under one-third in 1931 to about 40 per cent in 1941.

During the last decade, the farm population in Canada declined by about 131,000, with decreases being registered in seven provinces, and increases occurring in two, namely Quebec and Alberta. The increase of farm population was less than 10 per cent in both Quebec and Alberta. The decline was below 5 per cent in Manitoba and British Columbia and below 10 per cent for Prince Edward Island, New Brunswick and Saskatchewan. The largest decline, between 10 and 20 per cent, took place in Ontario and Nova Scotia (see Table 63). These figures make it clear that any program designed to provide for post-war farm housing needs must give consideration to regional variations in the trend of farm population.

In addition to providing information on the population living on farms, the 1941 Census includes statistics on the population living in predominantly farm areas and not necessarily on farms. To mark the distinction between these two categories, the terms *farm population* and *farm area population* should be

used definitively.[1] From one point of view, this second concept of the population concerned has advantages over the previous definition. A farm housing program should concern itself with providing housing accommodation for people living in predominantly farm areas. This would leave open one residual question, namely, whether farmers who live in urban areas and in large non-incorporated communities should be taken care of through urban housing legislation, or whether the regulations should be open to them, provided their property meets the essential requirements of being a farm.

Farm Area Population

The farm area population excludes those persons, who numbered 65,718 in 1931 and about 40,000 in 1941, who were classified as farm population in spite of the fact that they lived in urban centres and possibly a greater number living in non-incorporated communities. On the other hand, farm area population includes a small number of non-farmers, such as lumbermen, trappers, postmaster, etc. In most areas, the housing requirements of this small group of non-farmers included in farm areas will conform more to a rural than an urban pattern.

Population in farm areas numbered 3,276,000 in 1941 and comprised 63 per cent of the total rural population. This is 118,000 more than the population living on farms. The difference arises from the inclusion of a small non-farm group living in predominantly farm areas. There are, however, three provinces, Nova Scotia, New Brunswick and British Columbia, in which the population in farm areas is smaller than the population living on farms.

The explanation is that there are a number of communities consisting of miners, fishermen, trappers and lumbermen whose main occupation is other than farming, but who own tracts of land large enough to be considered as farms as defined by the Census (see below). Living on their land, these people are classified as farm population but are excluded in a count of the population in farm areas, because of their residence in non-farm rural communities.

In 1941, the number of households within the farm area population comprised 715,000, each of which consisted on an average, of 4.58 persons. The average number of persons per household was 4·42 for rural Canada, 4·11 for all urban communities and 4·04 for the major cities. The number of families in the farm area population was about 659,000, of which about 51,000 were lodging families, i.e. families sharing their dwellings with other families or with non-family groups.

Some preliminary information from a ten-per-cent sample of the Census is available on the occupational status of the farm population. About 636,000 were farmers, either working by themselves or with help (own account or employers), 179,000 persons were working for wages and 251,000 were working without pay (e.g. farmers' sons). Another 41,000 formerly active in agriculture

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[1] The precise definition of farm areas was applied in Canada as a whole for the first time in the Census of 1941. It is confined to regions where the overwhelming majority of the population consists of farm operators, their families and farm labourers. The farm population in farm areas ranges between 80 and 100 per cent of the total number of inhabitants in these regions. Frequently, large districts, rural in character, include less than 80 per cent farm population because of the inclusion of villages where a number of non-farmers live. Census returns from these areas, technically known as "mixed book", are separated by the Dominion Bureau of Statistics into (*a*) rural non-farm (the village) and (*b*) farm areas (the district surrounding the village). To simplify the administration of farm housing legislation, it would be possible to prepare a schedule showing geographical demarcations of farm areas based on the returns of the Dominion Census, 1941. Such a schedule could be prepared by the Census Branch of the Dominion Bureau of Statistics and might simplify considerably the procedures under which a farmer could qualify as falling under the provisions of the Farm Housing Act. The advantage of such a schedule is that only those applicants who live outside farm areas would have to prove that they are *bona fide* farmers, while residents of farm areas would come *ipso jure* under farm housing legislation.

were in the armed forces as of June, 1941; this number, of course, has risen considerably since that date. These statistics thus reveal a total of 1,107,000 persons, 14 years of age and over, gainfully occupied in agriculture in 1941.[1]

Agricultural wage-earners who represent more than 25 per cent of the number of farmers, and of whom nearly 100,000 are married, constitute a special problem because the need for providing housing accommodation for this group is acute.

TABLE 63.—SUMMARY STATISTICS OF FARM AREAS, 1931-1941

Province and Year	Population		Farms		Farm Areas			
	On farms (1)	In farm areas	Occupied	Abandoned	Buildings (2)	Dwellings (3)	Households	Families
Prince Edward Id.								
1931	55,478	—	12,865	376	11,748	11,803	11,870	12,771
1941	51,072	62,858	12,234	434	14,136	14,297	13,819	13,139
Nova Scotia—								
1931	177,690	—	39,444	3,064	37,442	37,839	38,446	42,038
1941	143,614	139,269	32,963	2,707	32,035	32,510	31,357	29,053
New Brunswick—								
1931	180,214	—	34,025	1,622	32,907	33,555	34,040	37,644
1941	163,617	146,248	31,881	1,804	30,696	29,891	29,008	29,059
Quebec—								
1931	777,017	—	135,957	2,747	127,949	129,758	130,690	143,823
1941	846,248	873,961	154,629	5,315	149,135	156,623	153,060	150,657
Ontario—								
1931	800,960	—	192,174	4,572	179,598	184,195	185,429	198,223
1941	704,016	742,649	178,169	5,563	179,478	186,954	182,923	167,099
Manitoba—								
1931	256,305	—	54,199	6,476	52,406	52,647	52,719	55,862
1941	250,469	265,848	58,022	3,190	57,530	57,882	57,608	53,550
Saskatchewan—								
1931	564,012	—	136,472	5,183	117,144	117,359	118,188	124,546
1941	514,684	546,173	138,703	7,791	117,541	127,239	124,239	111,336
Alberta—								
1931	375,097	—	97,408	6,640	87,125	87,396	87,580	91,771
1941	383,330	401,747	99,716	4,009	97,668	97,937	96,798	83,877
Brit. Columbia—								
1931	102,367	—	26,079	2,133	26,894	27,164	27,204	28,936
1941	100,920	97,554	26,372	1,705	25,698	26,411	25,924	21,098
Canada—								
1931	3,289,140	.....	728,623	32,813	673,213	681,716	686,166	735,614
1941	3,157,970	3,276,307	732,689	32,518	703,917	729,744	714,736	658,868

Source: For rural population, Volume VIII, p. XXXII, Census of 1931, Bulletin No. HF-1, Census Branch, 1941, and additional information by courtesy of Census of Agriculture Branch, Dominion Bureau of Statistics; for occupied farms, Volume VIII, pp. 16-17, Census of 1931, and Bulletin 48, Census of Agriculture, 1941; for abandoned farms, Volume VIII, p. 34, Census of 1931, and date for 1941 supplied by the Census of Agriculture Branch; for buildings, dwellings, households and families, estimates obtained by applying the percentages of farm to rural population in each province in 1931 to the respective data on these items for that year, and Bulletin No. HF-1, Census Branch, Dominion Bureau of Statistics, 1941. All data for 1941 are preliminary and do not include Yukon and Northwest Territories.

(1) This includes only those persons actually living on farms (including farms in urban areas) and should be distinguished from the term "farm area population", the latter denoting persons living in predominantly farm areas, and not necessarily on farms.

(2) Buildings used for habitation only.

(3) Includes vacant dwellings.

[1] The above-mentioned figures, derived from a sample study as they are, are subject to an error whose upper limit is probably about five per cent.

Trends in Size of the Farm Population

Some indication is desirable of the effect of the war on the farm population. The call for volunteers for the armed forces appealed greatly to younger men in agricultural areas, and many farmers' sons and farm workers joined up before Manpower Mobilization regulations declared agriculture to be an essential industry. Furthermore, during the first three years of the war, there was a considerable drain of young men and women from farm areas to urban centres where booming war industries promised higher wages and where city life afforded more amenities.

Figures tabled by the Minister of Labour in the spring of 1943, showed that the agricultural working population (males 14 years of age and over) numbering 1,450,000 on August 31, 1939, declined by 430,000 or about 30 per cent, to 1,020,000 by January 30, 1943. Many of the 430,000 who left agricultural occupations are now in the armed forces, but still more have found remunerative work in urban centres. It can be expected that a portion of this group will return to their agricultural vocations after the war, their number depending on agricultural policy and other factors. In particular, the amount of back-to-the-farm movement will depend on the extent to which provisions of the Veterans' Land Act, and possibly other settlement measures, find application; on production and price policies designed to keep farming as remunerative an occupation as it has become during the war; on the scope of a farm amenities program and on an extension of rural facilities such as farm electrification, schools, etc. Another factor which may assume an important role in the development of the farm population of the country is the position of immigration policy in the post-war period. But obviously housing policy itself is a highly important determinant in the picture. Men formerly engaged in farm occupations will be willing to return to farm life only if they see that they will be able to earn enough to make a decent living and to enjoy amenities which, though perhaps not on a modern city level, are considerably above the level of amenities which farm life provided before the war. The same applies to young people now living on farms who will make their first start in working life after the war.

Because of the uncertainty of many of these factors, it is not possible to forecast the future growth of the Canadian farm population. The estimates of farm housing requirements after the war, referred to here and in Chapter 10, relate, therefore, to conditions as they exist at present. Clearly, the return of soldiers and war workers to agricultural occupations will intensify the farm housing problem, and some allowance must be made for adjustment of the figures in the light of the actual growth of farm population after the war.

Present Facts of Farm Housing

A farm is defined in the Census as all the land located in one municipality which is directly farmed by one person conducting agricultural operations either by his own labour or with the assistance of members of his household or of hired employees. It may consist of a single tract of land, or of a number of separate tracts held under different tenures. In order to be reported as a farm, such land must be of one acre or more in extent and must have produced in 1940, agricultural products to the value of $50 or more, or be under crops or employed for pasture in 1941.

Accordingly, while land owned by one farmer which is situated in two different municipalities may be classified in the Census as two farms, only one farmhouse would be recorded. There are other farms immediately adjoining urban communities which are tilled but which are not inhabited by farmers, whose residence is in the village or town near by. The Census registered 57,000 non-resident farms in 1931 and 61,000 in 1941. In addition to the argument brought forward in connection with the definition of the farm population, this is a further reason why "dwellings in farm areas" and not "farms" should be made the basis of consideration of a farm housing program.

There were 732,000 such farms in Canada in 1941, this number representing an increase of about 4,000 over the 1931 level. The increase is notable in view of the fact that the farm population as such has declined during the last decade. In 1941, there were 730,000 *dwellings* in farm areas of which 570,000 were owned, 133,000 were rented and 27,000 were vacant. The latter figure approximates the number of abandoned farms which, in 1941, stood at about 32,000 (see Table 63).

Owned dwellings in farm areas made up 81·4 per cent of the total, as compared with 75 per cent owned farms. The difference is explained partly by the fact that a proportion of farmers residing in urban areas or non-incorporated communities rent rather than own the land which they till. Another reason for the Canadian average of owned farms being lower than owned dwellings in farm areas is the high proportion of tenancy among Prairie farmers. Only 66 per cent of farms in Manitoba, 53 per cent in Saskatchewan and 63 per cent in Alberta were occupied by their owners. On the other hand, the percentages of owned dwellings in Prairie farm areas was considerably greater, namely 76 per cent in Manitoba, 74 per cent in Saskatchewan and 80 per cent in Alberta.

Farm Values

The value of a farm, not considering for the moment its situation in terms of distance from the nearest market, is determined by four components: land (assessed according to quality of the soil and the size of the farm), buildings, implements and machinery, and livestock.

The average value of farms increased from 1901 to 1921, reaching, in the latter year, an all-time high of approximately $9,200. Values declined by 22 per cent, or to about $7,200 in 1931, and still further, by 21 per cent, to approximately $5,700, in 1941 (see Table 49, Chapter 10). During the last two decades, buildings made up about one-quarter of the total value of the farm, the proportion remaining stable throughout this period. This means that buildings declined in value to the same extent as total farm values. The steady lowering of value can be explained by the deterioration of the existing farm housing supply due to the lack of proper upkeep and to an exceptionally low rate of replacement. It often requires an emergency (fire, wind storm, etc.) or else a series of exceptionally good harvest years to induce a farmer to tear down his old dilapidated house and build a new one. Another factor involved is that a barn, for example, is apt to be considered a good investment, and a house only an expense which, though desirable in itself, will not increase the future income of the farmer.

The fact that the process of mechanization in agriculture is continuing and that there are noticeable shifts towards more mixed farm economies is witnessed in the increased importance which two components, namely, implements and machinery, and livestock, have assumed in determining the total value of the farm. Implements and machinery and livestock made up, respectively, 12 and 10 per cent of the total farm value in 1931, as compared with 14 per cent each in 1941. While these two components increased in importance and the value of buildings remained stable, the significance of land as a determinant of the total value declined from 52 per cent to 46 per cent. The land component is, of course, affected directly by the size of the farms. There were in 1941 about 110,000 farms, or 15 per cent of the total, consisting of 50 acres or less. Farms ranging between 51 and 100 acres numbered 159,000 or 22 per cent, while those ranging between 101 and 200 acres numbered 230,000 or 31 per cent. The remaining 233,000 farms, or 32 per cent, consisted of over 200 acres.

APPENDIX H

FARM ELECTRIFICATION REQUIREMENTS

The subject of rural electrification has several ramifications which are beyond the scope of this report. It is included here only because it is so important an aspect of the problem of raising the standard of housing accommodation in rural Canada. Thus it is with the electrical equipment of the farm dwelling, rather than of the farm as a whole, that this note is concerned, although the two are intimately related.

The benefits of rural electrification in increasing the productive capacity of farms as well as improving the mode of living of the farm household have received general recognition. They are great enough to warrant careful examination of the dimensions which a farm electrification program might assume in the post-war period. The fact that the benefits are not solely economic in character raises the question as to what criteria should be applied in determining its dimensions and, in particular, as to whether the element of profit-and-loss should be assigned the primary place among them. These considerations must influence the role which both the Dominion and provincial governments might play in developing a program. It may be noted that it is standard practice in Ontario for the provincial government to advance to the Hydro Electric Power Commission aid to the extent of 50 per cent of all costs incurred by the Commission on primary line construction and other capital items.

The Report of the Manitoba Electrification Inquiry Commission has made the most substantial contribution to understanding of the subject and to the material needed for formulation of policy, in recent times. Its considered judgment is that electricity on the farm has profound and far-reaching effects upon the social as well as upon the economic aspects of farming. It reduces drudgery upon the farm as it has done in the factory; it increases income; reduces costs of production and, by removing the disparity between the rural and urban way of life, brings a large measure of contentment to people on the farm.[1]

In Ontario, great significance is attached to a program of rural electrification. A few years ago the statement was made that the value of the services of the Ontario Hydro Electric Power Commission to the farm population can scarcely be over-estimated, particularly in regions such as old Ontario, where farm labour is scarce and costly.[2] Similar emphasis on the need for extension of electrification to rural areas in Quebec has been made by Premier Godbout. The need for increased electrification, of course, is not confined to the provinces mentioned, and serious thought is being given to it elsewhere.

It was indicated in Chapter 10 that of approximately 730,000 dwellings in farm areas, only about 141,000 are either connected with central electricity stations or supplied with their own generating equipment. In the United States in 1941 about two-fifths of all farm dwellings were supplied with electric power, mainly through developments in the preceding decade.[3] Since this year, further progress has been made in the electrification of American farms. To bring the standard of electrification of farm dwellings in Canada up to that prevailing in the United States in 1941, this country would require the electrification of 292,000 units. In fact only 141,000 dwellings in farm areas had electricity in 1941. Judging from the Canadian figure just referred to, the Dominion has a comparative

[1] Report of the Electrification Inquiry Commission, 1942 (Dr. Emmerson P. Schmidt, Chairman). *A Farm Electrification Programme*, Department of Lands and Resources, Manitoba. Winnipeg, 1942, p. 1.

[2] Statement by the Hon. T. Stewart Lyon, former chairman of the Ontario Hydro Electric Power Commission. *Report of the Third World Power Conference*. Washington, 1938, p. 807.

[3] Edison Electric Institute: Statistical Bulletin, No. 9, 1941, p. 31.

deficit of about 151,000 units. In other words, the ratio of electrification of farm dwellings in Canada and the United States is 1:2 in favour of the latter. It is of interest to note that the United States itself ranks, in matters of rural electrification, considerably below the western European countries, where between 50 and 98 per cent of all farms are supplied with electric power.

For the purpose of determining the dimensions of a post-war farm electrification program, it is less useful to adopt figures relating to "farms with electricity" than data relating to dwellings in farm areas. This arises from the fact that there are about 7,000 farms in urban areas, many of them supplied with electricity, and that there are many more adjacent to urban centres capable of supplying them with central station energy.

Computations of the proportion of farms which are supplied with electric power from central stations have been made by the Manitoba Commission referred to above. Figures are also available from the Housing Census of dwellings in farm areas which have power. It is of interest and of some importance to bring these tables together, as both are likely to be cited in current discussions of the subject, although they differ since they are not on exactly the same basis. The latter figures in particular include some farms with small generating units, and they relate also to all dwellings in farm areas.[1]

In general, on either basis, the degree of coverage is much the same in five provinces—Prince Edward Island and Nova Scotia, Quebec and Ontario, and British Columbia. In the Prairie Provinces, on the other hand, the proportion of farms receiving central station energy is far smaller than the percentage of dwellings in farm areas with electricity, while in New Brunswick the opposite is the case.

TABLE 64.—FARMS SUPPLIED WITH CENTRAL-STATION ELECTRICITY AND PERCENTAGE OF DWELLINGS IN FARM AREAS WITH ELECTRICITY, 1941

Province	Total number of farms	Farms receiving central station energy (estimate)		Percentage of dwellings in farm areas with electricity
		No.	P.C.	
Prince Edward Island	12,234	644	5·3	6·2
Nova Scotia	32,963	7,500	22·7	26·2
New Brunswick	31,881	12,000	40·0	18·6
Quebec	154,629	25,000	16·2	23·6
Ontario	178,169	59,000	33·1	37·3
Manitoba	58,022	1,109	1·9	7·3
Saskatchewan	138,703	235	0·2	4·9
Alberta	99,716	505	0·5	6·0
British Columbia	26,372	8,500	32·2	36·0
Canada	732,689	114,493	15·6	20·1

Source: (*a*) Number of farms (Yukon excluded), Bulletin No. 48, Census of Agriculture, 1941; (*b*) farms receiving central station energy, Manitoba Electrification Commission, Report, 1943, pp. 67-70; (*c*) dwellings in farm areas with electricity, revised data by courtesy of Housing Census Branch, Dominion Bureau of Statistics, 1941.

The capital costs of electrification vary considerably according to the distance of farms from electric stations and the coverage of the electrification program. For example, it has been estimated that capital expenditure for electrification of one farm unit in Manitoba (Provincial Power Commission), will average between $673 and $798, depending on the level of prices and the degree of saturation. For Ontario, on a basis of two farm customers per mile

[1] The difference between farm area and farm population is explained in Appendix G.

of line, the costs will amount to about $890.[1] On the other hand, provincial authorities in the Maritimes claim that rural electrification costs will be considerably lower, perhaps in the neighbourhood of $300 per unit. With such great variations in cost between the different regions, it is very difficult to suggest an average capital cost per unit for the whole of Canada. If $500 be taken as a reasonable *average* cost of electrification of a unit in all farm areas combined, the total capital cost of a national program will then be dependent simply on its extent. The cost, in other words, will depend upon the general agricultural policy of the Dominion in the post-war years. For this reason the estimates given below of the dimensions of a post-war electrification program, (based on varying proportions of all dwellings situated in farm areas), must be regarded as illustrative mainly of possible range.

The Ontario Hydro Electric Power Commission estimates that of nearly 200,000 farmers in that province, approximately 75,000 or 37·2 per cent are at present within a range permitting the extension of service on an economic basis.[2] On the basis of dwellings in farm areas, electrification of 75,000 dwellings would represent a coverage of 40 per cent of the total number of 187,000. This estimate, however, is not all-inclusive because no data are available for farms in Ontario served by organizations other than the Ontario Hydro Electric Power Commission.

Proposals for the province of Manitoba contemplate a much higher coverage. It is stated in the Manitoba report that out of nearly 59,000 farms, about 53,000 or 90 per cent lie "within the service area in which it is practical to build farm lines and provide service at a uniform schedule of rates."[3]

TABLE 65.—POSSIBLE RANGE OF DIMENSIONS OF A POST-WAR FARM ELECTRIFICATION PROGRAM FOR CANADA

Degree of coverage	Number of units	Expenditure ($ million)
40 per cent	233,000	116·5
60 per cent	350,000	175
80 per cent	466,000	233

Source: Estimate prepared by research staff of Advisory Committee on Reconstruction. In the higher percentage programs, it is likely that cost of electrification given increased coverage will be somewhat lower, altthough this will still, to a great extent, depend on the density of the area covered.

The possible dimensions of a Dominion-wide farm electrification program may further be assessed in the light of specific information for Ontario and Manitoba. If, as is likely, similar information is forthcoming for the other provinces, a clear picture of the scope of a farm electrification program now envisaged will be available.

The following statement made specifically by the Ontario Hydro-Electric Power Commission for this report is of interest because it indicates the possible annual volume of extension work on rural electrification in the immediate post-war period:

> In considering a rural electrification program in Ontario, it should be noted that in the more productive southern part of the Province, the existing mileage of rural lines is approaching saturation, with the result that the greater part of new development will be in less densely settled areas. The rate of development will be dependent on the level of farm income and the availability of construction materials and equipment, and electrical farm appliances.

[1] The capital cost of electrification met by the Ontario farm consumer, it has been estimated, will amount on the average to about $323 for line service and wiring.

[2] This estimate is from the Manitoba report.

[3] Manitoba Report, op. cit. p. 107.

Subject to the above conditions, it is estimated that for two or three years after the war there may possibly be 1,500 miles of primary line constructed per year serving approximately 6,000 additional consumers per year; in addition to this, approximately 4,000 new consumers would be supplied from existing lines. This would give estimated annual expenditures as shown in the accompanying table.[1]

TABLE 66.—ESTIMATE OF ANNUAL EXPENDITURES OF AN ONTARIO RURAL ELECTRIFICATION PROGRAM IN THE IMMEDIATE POST-WAR PERIOD

Type of expenditure	Number of units	Estimated expenditure
		$000
Construction of 1,500 miles of new lines	3,000 farm and 3,000 hamlet consumers	2,625
Additions to existing lines	2,000 farm and 2,000 hamlet consumers	465
Expenditures of new consumers for wiring of premises and purchase of appliances.	5,000 farm and 5,000 hamlet consumers	2,000
New equipment for existing consumers	135,000 consumers	1,350
Total		6,440

Source: Table by courtesy of Ontario Hydro-Electric Power Commission.

The Manitoba Electrification Inquiry Commission has submitted proposals for a ten-year program of farm electrification designed to provide services for additional 25,000 farms involving an outlay of between $19 to $21 millions (see Table 67).

TABLE 67.—ESTIMATE OF CAPITAL EXPENDITURE OF A FARM ELECTRIFICATION PROGRAM IN MANITOBA FOR THE FIRST POST-WAR DECADE

Year	Number of farm connections	Capital expenditure(1)	
		60% farm saturation	80% farm saturation
		$000	$000
1st	1,000	1,237	1,173
2nd	1,500	1,605	1,510
3rd	2,000	1,973	1,846
4th	2,500	2,342	2,183
5th	3,000	2,710	2,520
6th	3,000	2,210	2,020
7th	3,000	2,210	2,020
8th	3,000	2,210	2,020
9th	3,000	2,210	2,020
10th	3,000	2,210	2,020
Total	25,000	20,917	19,332

Source: Table compiled from Report of Manitoba Electrification Inquiry Commission, 1942. Winnipeg, 1943, pp. 113-114. The above estimates are based on 1939 prices. To obtain approximate totals for 1942 prices, 8 per cent should be added to the above figures. The totals do not include the capital required for general extensions to the properties of the system of the Manitoba Power Commission in the towns and villages now served.

(1) Includes 2·5 million dollars for extension of existing network during the first five years.

[1] The cost figures for construction of new lines, supplied here, distinguish themselves from those mentioned previously in this Appendix in that they relate to more than two farm customers per mile of line. Because of the inclusion of hamlet customers, average capital expenditure by individual consumers is also lower than indicated previously.

APPENDIX J (*a*)

RECOMMENDATIONS OF SCOTT COMMITTEE

(Committee on Land Utilization in Rural Areas, 1942)

The terms of reference of this Committee were as follows:

"To consider the conditions which should govern building and other constructional development in country areas consistently with the maintenance of agriculture, and in particular the factors affecting the location of industry, having regard to economic operation, part-time and seasonal employment, the well-being of rural communities and the preservation of rural amenities."

To render the summary more convenient for reference, the order has been changed from that of the official summary, and some sections not particularly relevant to Canadian conditions have been omitted. The figures in the right-hand column refer to the numbers of the paragraphs in the body of the Report.

I. Central Planning Authority

The Central Planning Commission should consist of a full-time independent paid Chairman, who should be given . . . ministerial status,[1] and a number of part-time or full-time commissioners, chosen on the basis of their special qualifications and knowledge as individuals of proved ability in their own spheres. The staff of the Commission should consist of Civil Service personnel, chosen as far as possibe with a knowledge of the internal organization of the several Departments with which the Commission will be in contact, and other persons, including some specialists, chosen for their knowledge of particular subjects and the prosecution of research. 221

Outside London the Commission should be represented by Local Officers, who should as far as possible settle all matters of local importance without, however, denying the right of access to the Commission itself.

The duties of the Commission should include, *inter alia*:—

(*a*) unified research and enquiry—the collection and correlation of information and the direction of research in connection therewith;

(*b*) the formulation of national planning principles in accordance with directions received from the Minister in his capacity as Chairman of the Committee of Ministers, and the translation of national policy into concrete terms of national planning;

(*c*) the consideration of directions received from Departmental Ministers and the reporting thereon;

(*d*) the formulation and communication of general principles for the guidance of local planning authorities and the initiation, either direct or through the local officers of schemes of national importance;

(*e*) the approval or disapproval of plans submitted by local planning authorities and decisions thereon in accordance with Government policy.

It is important to recognize that the function of the Commission is a continuing one, thus making it possible to benefit from the accumulation of knowledge and experience; its task is continuous national planning and not the formulation of a single fixed plan, for it is essential that planning should be flexible and capable of modification to meet changing needs.

[1] (i.e., a right of direct access to Ministers, and equality of status with them in certain respects.)

It is anticipated that the Commission will maintain regular and close contact with all departments of State and statutory bodies concerned with the use of land, with a view to avoiding clashes of interests, and only when rival claims cannot be settled in discussion with the Commission as an impartial body would the matter be referred for decision to a Committee of Ministers . . . , or failing that to the Cabinet.

Much of the work of the Commission will . . . be advisory: it will advise the Minister on matters affecting the formulation of national planning policy, and it will advise Government Departments, statutory undertakings, local authorities, and, where necessary, individuals, concerned with the use of land or its development. There should be a statutory obligation on all departmental ministries to afford all requisite information to the Commission, and to consult with it and to consider its advice.

223 *Local Planning.* For the success of national planning we consider that it is essential to maintain local initiative and enterprise and that, subject to the general guidance to be afforded by the directions of the Commission by which national policy will be interpreted, local authorities will continue to exercise their functions as planning authorities. They will, however, no longer be acting without guidance when initiating schemes; and it will no longer be possible for individual local authorities to refuse to co-operate in planning schemes. Reviewing the work which has been carried out under the Town and Country Planning Acts, we consider that fundamental changes which are needed include the following:—

(*a*) local planning must be compulsory and not permissive, so that the whole country may be covered and all development come under review:

(*b*) normally the primary local planning unit should be the county, or the county borough and its surrounding area, or a combination of local government units comparable in area, resources or importance with a county. In any case the local planning authority should be the same authority or combination of authorities as executes the principal local government functions involving the use of land. Within this framework the extremely important functions will devolve on the smaller local authorities of affording the county planning authorities the benefit of their local knowledge in the formulation of plans, and the county authorities must consult the district councils accordingly; whilst in due course the responsibility for the execution of works within the approved scheme may fall on the district councils:

(*c*) local planning authorities must employ qualified personnel;

(*d*) consultation between neighbouring planning authorities must be compulsory;

(*e*) local planning authorities should be freed from the restrictions in the zoning of agricultural land due to liability for compensation under which they have laboured in the past;

(*f*) where local planning authorities are carrying out their assigned part in a national plan, the expense should not fall on their own local financial resources, but, with this exception, planning control and development should normally be initiated and carried out by the authority or authorities liable to bear the expenditure;

(*g*) when approved a local planning scheme should be a complete code of enactments affecting both the development of the land and the functions of the statutory authorities within the area of the scheme.

It will be noticed that whereas for the purpose of the Central Planning Authority we consider it essential to separate planning from development, in local planning we recognize that such separation is wholly impracticable and that the same authority must be entrusted with both functions.

Regional Organization. The task of the Central Planning Authority is 224
essentially to secure a balance in the national interests regarding the utilization of land. The general principles will be enunciated from the centre. In order to obviate delays, difficult to avoid if all questions have to be referred to the centre, we consider it essential that the Commission should be represented by regional officers able to make available immediately to planning authorities all information in the possession of the Commission which they may need. The existence of these officers will not of course preclude the right of access from local authorities to the Commission itself.

Procedure

(1) A procedure similar to that adopted under the present Town and 229
Country Planning Act of 1932 but considerably strengthened both locally and by the super-imposition of national planning is the best method of controlling land use in country areas.

(2) Certain land zones should be delimited nationally, e.g., national forest 230
zones and national parks; in the case of national parks, the National Parks 231
Authority should become the *ad hoc* Planning Authority.

(3) In future *all* considerations affecting land use should be taken into account in land planning, and in country areas one of the most important of these must be the agricultural aspect; in planning rural land particular importance should be attached to agricultural considerations; agricultural land should not be handed over unless a clear case in the national interest has been made out . . .

(4) It should be obligatory to obtain the consent of the local planning authority before any building or other constructional development is allowed to take place, (but provision is made for veto, and for appeals from veto, by Regional Officers, etc.)

Five Year Plan for Britain.

Most of the recommendation made in the report should be carried out within a fixed space of time after the end of the war and suggestions are made accordingly.

Status and Training of Planners and Architects.

Universities, college and professional institutions should draw up comprehensive schemes for the training of young men and women to act as planners and architects.

II. Town Planning in Country Areas

Town Planning.

(1) From the initiation of all town planning schemes involving the use of 202
agricultural land there should be the closest collaboration with the Ministry of Agriculture and Fisheries.

(2) Every local planning scheme should be agreed by the Ministry of Agriculture before approval by the Central Planning Authority and in the event of disagreement the suggested machinery for the resolution of inter-departmental differences should be utilized.

(3) As far as possible tracts of good soil in the neighbourhood of towns and villages should be kept for the dual purpose of open spaces and market gardens and allotments and accordingly allotment holders should have security of tenure instead of the liability of being displaced by housing development.

(4) Provision should be made for town-dwellers to keep pigs and poultry and to continue other rural occupations.

(5) The area and delimitation of "green belts" should be agreed with the Ministry of Agriculture.

(6) Agricultural, soil, and land classification surveys should be made round each expanding urban area with the object of directing housing and other construction towards less productive land and of preventing the disruption of farm units.

203 (7) New satellite towns, housing estates, garden cities and suburbs should be sited wherever practicable away from the better farm land and due attention should be paid to agricultural considerations in their siting; as in the case of the planning of existing towns the Ministry of Agriculture should be consulted from the inception of the planning schemes.

204 (8) Sporadic building in villages and rural areas should be controlled and planning schemes designed so as to direct all new settlers into country towns and villages except where they can advance some decisive reason why they should be housed in the open countryside.

205 (9) New villages and extensions of villages should be planned and should as far as possible be of a compact and closely knit character; no attempt should be made to recreate in the new villages the irregularity and "quaintness" of old ones; the services of the statutory panels of architects and planners should be available for all planning and construction in villages as well as in the open countryside.

206 (10) All new villages and country towns should be situated away from main traffic roads though within easy access to them and all existing villages and country towns which have main traffic roads running through them should be by-passed as far as possible.

207 (11) New buildings in country areas should use to the full all the possibilities which new materials and new building techniques have made available though the buildings should be designed so as to harmonize with their surroundings; building in block formation is to be preferred to building in scattered detached units, so far as scenic effect is concerned; the use of materials should be controlled.

Roads and Railways

211 (1) There should be greater co-ordination and collaboration between the Planning, Highway, and Agricultural Authorities in the case of the construction of roads.

(2) The exemption of railway undertakings from planning control should cease.

(3) There should be bold planning for a number of new trunk highways, even at the expense of using agricultural land, rather than the continuance of piece-meal widening of existing roads.

(4) New trunk roads should be planned to avoid villages and small country towns.

(5) Railway level crossings on important roads should be eliminated and many old railway bridges should be rebuilt.

Wayside Construction

212 (1) Regulation of petrol stations should be exercised under planning powers rather than by a separate system of by-laws; the law should be amended accordingly. The control of petrol stations should be specially considered by the Central Planning Authority in conjunction with the Ministry of Transport and directions issued for observance by local planning authorities.

213 (2) Control should be exercised by local planning authorities subject to general directions by the Central Planning Authority over the construction and appearance of transport cafes, wayside cafes and restaurants, etc.

(3) Control should be exercised over the siting and character of advertise- 214
ments by means of a licensing system exercised by the local planning authorities in accordance with national principles.

Defence Works and Aerodromes

(1) The Central Planning Authority in consultation with the Service 210
Departments should draw up plans now for the removal of temporary defence works; this removal should be carried out by the Ministry of Works on behalf of the Service Departments and the land made available for other purposes.

(2) Aerodromes have involved the use of much good agricultural land. The 209
need for further Service aerodromes after the war is not likely to be great but if new ones are required consultation should take place as at present between the Departments concerned under the supervision and direction of the Central Planning Authority; it is hoped that it will not be necessary to take further tracts of good agricultural land.

(3) If some Service aerodromes can be disposed of after the war the question of their alternative use should be settled by the Central Planning Authority in conjunction with the Departments concerned and not by the Service Departments alone.

(4) Civil aerodromes should form a part of local planning schemes and their siting and buildings should be controlled; it is hoped that it will not be necessary to withdraw first class farm land for this purpose.

III. Access to the Countryside, Parks, etc.

(1) National Parks should be delimited and a National Parks Authority 178
set up.

(2) The Central Planning Authority in consultation with the Ministry of Agriculture should take steps to record details of common lands, safeguard public rights of access, and commoners' rights; also the upkeep of commons should be investigated.

(3) The Central Planning Authority, in conjunction with the appropriate 179
Scientific Societies, should delimit nature reserves, and take the necessary steps for reservation and control.

(4) Further holiday camps should be provided, subject to planning control 180
of siting and design.

(5) There should be an extension of afforestation on poor land together 173
with the establishment of foresters' part-time holdings and national forest parks.

(6) The Forestry Commission should be empowered to enforce the proper 174
management of all woodland in the country.

(7) There must be facility of access for all to the countryside but this must 175
not interfere with the proper use of land in the national interest.

(8) The Board of Education and the Ministry of Agriculture should organize a publicity campaign with the bodies concerned to educate the urban public, the landowners and farmers in the better provision and enjoyment of access to the countryside.

(9) There should be an extension of organized visits officially recognized and supported by the Board of Education of parties of school children into the countryside.

(10) If educational publicity fails adequately to control the use of the countryside by the urban public, there should be severe penalties and a stricter enforcement of the law.

(11) More attention should be paid to the planting of trees and shrubs in 174
the design and lay-out of housing development.

IV. Rural Housing and Amenities

Housing

162 (1) The improvement of rural housing is an essential prerequisite of a contented countryside.

(2) New houses should be built ready-wired for electricity and appropriately constructed to receive gas and water supplies even if these services are not immediately available.

(3) The rating assessment position should be considered by the Government since at present it may hinder improvements.

(4) The condition of all rural dwellings should be investigated and restorations in harmony with traditional local house design carried out to bring old dwellings up to modern standards.

(5) The number of rural houses fit for habitation is totally inadequate and a big building program should be undertaken after the war.

(6) Rural housing designs should be subject to approval for plans and elevations as well as for materials by Statutory Panels of paid architects and others which should be appointed for the purpose.

(7) Women should be appointed members of all Housing Committees of Local Authorities.

163 (8) The number of tied cottages should be reduced to a minimum and such tied cottages should normally be reserved for appropriate workers.

(9) The supply of "untied" cottages should be always sufficient to house at least the agricultural workers of the district.

(10) Farm workers should be encouraged to have cottages built for their own occupation and with this end in view the subsidy provisions of the 1938 Housing Act should be more widely known.

Village Institutions

170 (1) A permanent advisory Committee on village life and institutions should be set up; it should include representatives of the Board of Education, the Ministry of Agriculture, and the various other national bodies concerned as well as of the religious bodies interested.

(2) Steps should be taken to provide social centres of the village college type throughout the country.

(3) A village hall should be provided in all smaller villages.

(4) The performance of certain duties should be incumbent upon a properly elected Parish Council.

Utilities

165 (1) Electricity should be made available throughout the country at no higher prices to the consumer than in the town. We do not anticipate that any increased burden will result for the town.

(2) The Electricity Commissioners should be instructed to prepare a scheme for consideration by the Government for the reorganization of electricity supply to enable this to be done. Various special points for consideration are mentioned.

(3) Electricity undertakings should be subject to national planning control.

166 (4) The Ministry of Fuel and Power and the Ministry of Agriculture in conjunction with bodies representing the industry and in consultation with the Central Planning Authority should examine the possibilities of extending gas supplies to rural areas and prepare plans accordingly.

(5) Gas undertakings should be subject to national planning control.

(6) The ministries of Health and Agriculture in conjunction with the industry and in consultation with the Central Planning Authority should review the whole position of water supply from the national point of view with special reference to the following matters, amongst others:— 167

(*a*) the provision of a main supply to all towns and larger villages not at present supplied;

(*b*) the reorganization of supply areas;

(*c*) the use of gathering grounds for additional purposes, e.g., hill sheep farming, afforestation, recreation;

(*d*) the facilitation of a piped supply to all farms, market gardens and allotments.

(7) All water supply undertakings should be brought under national planning control.

V. Industry in Country Areas

(1) *Location of Industry.* Before new towns are established in country areas vacant or derelict industrial sites in existing towns should be fully utilized, but on balance introduction of carefully regulated industry into the towns of country areas would be beneficial. 199

(2) *Immobile or Rooted Industries.* Many heavy industries are immobile and must remain in the large urban concentrations. The disposal and future use of war factories established in the countryside should be determined by the Central Planning Authority in conjunction with the other Departments primarily concerned, each case being examined on its merits; the review should begin as soon as possible. 190

(3) *Public Utility Undertakings.* Production and storage units of public utility undertakings must sometimes be located in villages or in the open countryside. They should be subject to strict planning control as regards siting and appearance. 193

(4) *Noxious Industries.* The location of industries which omit noxious fumes or poisonous effluents should be subject to stringent control. 199

(5) *Linked Industries.* Linked industries should remain in existing urban concentrations or trading estates: the question of their dispersal into country areas only arises to a limited extent. 191

(6) *Mobile Industries.* Many light industries are theoretically mobile but in practice are often tied to a limited choice of localities: where they are brought into rural areas they should be located in existing or new small towns rather than in villages or the open countryside. 191 196 199

(7) *Seasonal and Part-time Employment.* No modern industry has been suggested which would provide seasonal or part-time employment for agricultural workers and their families; appropriate bodies should be asked to make a special study of this problem. 197 198

(8) *Trades providing for the Conveniences of Life.* Such trades must find a place in country areas in those locations, namely small towns or villages, which are most convenient for the rural communities. 195

(9) *Rural Trades and Crafts.* Rural trades and crafts should continue to be sited in small towns or villages and should be encouraged. The creation of guilds of craftsmen and the whole question of apprenticeship to such crafts should be reviewed. 194

(10) *Extractive Industries.*

188 (*a*) Extractive industries, though their location is determined by immutable physical conditions, which may often necessitate their coming into country areas, should be subject to effective planning control.

189 (*b*) In principle it is wrong that anybody or person should be allowed to work land for the extraction of minerals and leave it in a derelict condition. Legislation should be passed imposing an obligation on all those who derive benefit from the working of land for minerals to restore that land for agriculture or afforestation or other purposes within a short specified period of time after the land has been worked out; the legislation to be passed as soon as the Government is satisfied that suitable equipment can be made available; the technical question of machinery should form the subject of immediate investigation by the Government Departments concerned.

(*c*) In future, where land is leased or bought for the purpose of extracting minerals the primary responsibility for restoring the surface should be placed on those working the minerals leaving it to them to make suitable financial arrangements with the landowners or other persons concerned.

(*d*) Leave to prospect and develop minerals should be required and a deposit or security to cover the cost of restoration should be made.

(*e*) Provision should be made for the immediate or ultimate treatment of land rendered derelict through subsidence owing to deep workings where such treatment is economically feasible.

(*f*) The Central Planning Authority should take steps to make a special investigation of derelict or decaying mining areas with a view to their more productive utilization.

APPENDIX J (*b*)

RECOMMENDATIONS OF UTHWATT COMMITTEE

(Expert Committee on Compensation and Betterment, 1942)

The terms of reference of the Committee were as follows:—

"To make an objective analysis of the subject of the payment of compensation and recovery of betterment in respect of public control of the use of lands;

"To advise, as matter of urgency, what steps should be taken now or before the end of the war to prevent the work of reconstruction thereafter being prejudiced. In this connection the Committee are asked

to consider (*a*) possible means of stabilizing the value of land required for development or redevelopment, and (*b*) any extension or modification of powers to enable such land to be acquired by the public on an equitable basis;

to examine the merits and demerits of the methods considered;

and to advise what alterations of the existing law would be necessary to enable them to be adopted."

In order to simplify the summary and make it convenient for reference, considerable editing of the summary given in the official (Final) Report has been undertaken, but all excerpts reproduce the actual wording of the text. Sections of least relevance to Canadian conditions are omitted. The figures in the right-hand column refer to the numbers of the paragraphs in the body of the Report.

I. *Central Planning Authority.*

The Central Planning Authority we have in mind is an organization which 359
does not yet exist, and "planning" has a meaning not attached to it in any legislation nor, until recently, in the minds of the public. Put shortly, National Development is added to planning. . . .

However the Central Planning Authority is constituted and whatever 360
departmental arrangements are made, it is essential that there should exist means by which the requirements of agriculture, transport, public services and defence, as well as housing, industrial location, town siting and other matters, can be given proper weight and considered as a whole. Coordination at the centre as respects the various Government Departments interested in particular aspects of planning is necessary. Without this the general lines on which National Development should proceed cannot be properly determined, nor the lands properly managed in the interests of National Development.

It is clear at the outset that the settlement of the broad principles of policy, 361
the making of the schemes necessary to carry out that policy and the execution of the schemes are distinct matters.

Minister for National Development. In our view it would be a mistake 362
if there were created a Government Department concerned with National Development, which would rank with existing Government Departments. What is wanted is thought at the centre, an informed vision, unified control of land use and co-ordination between the existing Departments.

We think that this can only be secured if there is set up a Minister—we call him the Minister for National Development—who should be specially charged with National Development. He should have no departmental cares, but he

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should have the advantage of a highly qualified staff informed as to the economic conditions and needs of the country, competent to put forward proposals for consideration and to advise on the economic and other questions (other than technical questions) arising out of schemes for development.

363 The broad principles of policy would, we apprehend be settled by the Cabinet after consideration by a Committee of Ministers presided over by the Minister for National Development. The making of schemes necessary to carry out that policy would fall to the Committee of Ministers presided over by the Minister for National Development. Upon those schemes the Committee would have the assistance of the various Government Departments.

The actual execution of the schemes and formulation of detailed plans would fall to the Government Department concerned.

364 The planning functions of the Minister of Works and Planning under the present legislation appear to us to fall directly within the sphere of the Minister for National Development. Clearly the control of the "development rights scheme" and the exercise of the powers arising under it also fall within the sphere of the Minister for National Development. In our view general matters connected with development of land should be kept under the one hand and should be under the personal direction of the Minister for National Development.

365 *Commission for administrative work.* The next question is what organization should, consistently with the principles set out in the previous paragraph, be set up so as to secure that the Minister is not concerned with matters of day-to-day administration, that administration is properly handled and that local authorities, private developers, and landowners have ready access to informed advice and authoritative direction. In our view a suitable organization would be a Commission on the lines of the War Damage Commission. To the Commission so set up definite powers—including the powers arising under the Town and Country Planning Act and the "development rights scheme" should be given. The control of the Minister for National Development—and, with that, parliamentary control—should be secured by empowering the Minister to give directions to the Commission.

366 We would make only two observations upon the composition of the Commission. First, it is necessary that there should be a full-time Chairman and that it should include a member of the economic staff of the Minister. Second, it would be an advantage if no other members were full-time members. The opportunity should be seized of securing the service upon the Commission of persons who, by their experience of public affairs, their knowledge of the needs of industry or their knowledge of land utilization will ensure common sense administration, and command for the Commission the confidence of the public.

II. *Control of Land*

(*a*) Undeveloped Land.

368 We recommend the immediate vesting in the State of the rights of development in all land lying outside built-up areas (subject to certain exceptions) on payment of fair compensation, such vesting to be secured by the imposition of a prohibition against development otherwise than with the consent of the State accompanied by the grant of compulsory powers of acquiring the land itself when wanted for public purposes or approved private development.

(*b*) Developed Land.

369 *Interim Control of Development.* In order to secure the necessary control over all building and other development during the interim period while the broad lines of reconstruction are being worked out, legislation should be passed without delay providing that all areas not already covered by operative planning schemes or resolutions to plan should be deemed to be subject to such resolutions.

Extended Powers of Compulsory Purchase

(*a*) *War-Damaged and other Reconstruction Areas.* For the purpose of 370
securing the necessary redevelopment of areas which, whether by reason of war damage or otherwise, ought, in the opinion of the competent planning authority, to be scheduled for redevelopment as a whole, the planning authority should be given the power to purchase compulsorily the whole of such an area. We describe such areas as Reconstruction Areas.

No legal right to preferential treatment should be conferred on dispossessed owners of land in a Reconstruction Area, but, as a matter of administration, in the disposing of land regard should be paid to the claims of the dispossessed owner who wishes to secure a site in the Reconstruction Area.

Once any interest in land has passed into public ownership, it should be disposed of by way of lease only and not by way of sale, and the authority should have the power to impose such covenants in the lease as planning requirements make desirable, breach of such covenants to be enforceable by re-entry. Although this recommendation is made primarily in connection with Reconstruction Areas, it is intended to be of general application to any interest in land disposed of by a public authority.

(*b*) *Purchase for Planning Purposes.* Powers of compulsory acquisition of 371
land for planning purposes should be available before a planning scheme is in operation (as well as after it is in operation, as at present), provided Ministerial sanction of the proposed purchase is obtained.

Where development or redevelopment in accordance with a planning scheme is held up, the planning authority should have power to acquire the land compulsorily with a view to enabling developers to carry out the desired work.

The planning authority should have power to acquire land compulsorily with a view to development or redevelopment by the authority, themselves, but only where this is essential to accelerate the carrying out of a planning scheme.

The planning authority should be granted powers of compulsory purchase of any interest in or right over land in order that they may enforce, if necessary, adjustments which are required in the interests of good planning, in respect of boundaries and easements (including rights of light) as between particular properties.

Local authorities should be empowered, subject to the consent of the 372
appropriate Government Department, to acquire land in advance of requirements compulsorily as well as by agreement, and the power should not be subject to a qualification that the land is expected to be required for a defined purpose within a specified period of time.

Acquiring authorities should have general powers of compulsory purchase of 373
land, whether within or outside their area, for the purpose of the provision of alternative accommodation for persons displaced from premises purchased by the authority for planning schemes or other public purposes, but this power should not be exercisable in respect of land outside their area except with the consent of the appropriate Government Department.

III. *Procedure for Obtaining and Exercising Compulsory Powers of Acquisition*

We recommend the adoption of a new simple and expeditious procedure for 376
the purpose of the public acquisition of land in the case of Reconstruction Areas and such other areas as the Central Planning Authority or the appropriate Minister shall determine to be proper. The advantage of the procedure is that the legal matters involved are put on one side for separate treatment, and the acquiring authority are free to get on with their work without being hampered by the delays incident to the ascertainment of the persons interested, the examination of their title, and the assessment of the compensation payable to them.

377 *Service of Notices to Treat.* The acquiring authority should be allowed to serve notices to treat only in respect of such interests as they may desire to acquire.

Statement of Claim following Notice to Treat. It should be made obligatory upon any person served with a notice to treat to submit to the acquiring authority a statement of the nature of his interest within 21 days of the service upon him of the notice to treat. Failure to send in the statement in due time without good excuse should, in the event of an arbitration on the amount of compensation payable, give the arbitrator jurisdiction to deprive the peccant claimant of the whole or any part of his costs in the arbitration.

Power of Entry on Land. Where notice to treat has been served in respect of any land, the acquiring authority should, subject to having given 14 days' notice of their intention in that behalf to the person or persons in possession of the land, be entitled to enter upon the land at a date specified in the notice, and, whether entry is made at the date specified in the notice or not, interest on the compensation for all interests in the land entered should be paid from the date of intended entry up to the date of completion, and all apportionments made on that footing.

Power to serve Notices to Quit. The acquiring authority should, at any time after notice to treat has been given by them to a reversioner on any lease or tenancy, be entitled to give any notice to determine the lease or tenancy which the reversioner might lawfully have given.

Acquisition of Part only of Property. The acquiring authority should in all cases have power to take part of any property where they think fit, upon payment of proper compensation therefor (including compensation for injurious affection by severance, disturbance or otherwise); but where, in the authority's view, the claim for compensation would be such that it would be cheaper to acquire the whole or any part of the premises the authority should be empowered to do so.

IV. *Compensation for Planning Restrictions*

389 *Town and Country Planning Act, 1932.* The power of the Minister (or Central Planning Authority) to approve provisions in planning schemes excluding compensation should not be limited, as at present, to particular provisions specified in the Act, but, . . . should be general.

392 The effect of (existing) provisions . . . is to give a practically unqualified right to the maintenance, replacement, extension and use of existing buildings notwithstanding that they are out of conformity with a planning scheme, unless compensation is paid. In view of the hampering effects on reconstruction and redevelopment of these provisions, we recommend that they should be modified. In particular, we recommend (1) that there shall be power to place a "life" on "non-conforming" buildings and uses with a view to securing conformity without compensation at the expiration of that "life" in any particular case, and (2) that, if the planning authority consider it necessary to enforce conformity before the expiration of the "life", any compensation payable shall be assessed by reference to the remainder of the "life" still outstanding.

Life of Buildings

388 (1) An addition should be made to the . . . Housing Act . . . to the effect that, in assessing compensation for premises purchased . . . which, although not unfit for human habitation, are, by reason of their age, design, construction, arrangement or density, not in accordance with modern standards, the arbitrator shall assume that such buildings will become incapable of being used or let at or before the expiration of 10 years from the date of the Minister's approval of the Clearance Order or Compulsory Purchase Order, as the case may be.

(2) The foregoing provision . . . prescribing site value only as the basis of compensation in the case of houses unfit for human habitation, should be made applicable in the case of Reconstruction Areas and other cases where substantial blocks of land are acquired for redevelopment.

(3) Where a "life" has been placed on a "non-conforming" building or use for the purposes of securing conformity with a planning scheme . . . , the compensation payable in the event of the property being publicly acquired should be assessed by reference to the remainder of the "life" outstanding.

V. *Betterment*

(*a*) *Recoupment.* Local authorities should be given general powers to buy 394
land compulsorily for recoupment purposes, subject to their obtaining the sanction of the Central Planning Authority (who, we assume, would in appropriate cases consult any other Government Department concerned) as regards the area to be acquired, and to their giving proper publication locally of their proposals so that affected parties may have the opportunity of making representations to the Central Planning Authority. It should be open to the Central Planning Authority, if they think fit, to depute a competent official to visit the locality to make informal enquiries into the matter, but in our view no public enquiry should be held, and there should be no right of appeal against the decision of the Central Planning Authority.

(*b*) *Recovery by Set-off.* From the date that our scheme for a periodic 395
levy on increases in annual site values is established by Act of Parliament, all statutory provisions for set-off against compensation, whether on acquisition or for injurious affection, should cease to operate, except in so far as they relate to increases in the value of undeveloped land outside "town areas" while it remains undeveloped . . . .

(*c*) *Recovery by Direct Charge.* In view of the difficulties inherent in the 396
present system of collecting betterment under the Town and Country Planning Act, 1932, and its failure to produce practical results, that system should be abandoned in favour of our scheme for a periodic levy on increases in annual site values.

VI. *Recommended Scheme for Periodic Levy on Increases in Annual Site Values*

We recommend a scheme for a periodic levy on a proportion of increases in 397
annual site values as revealed by quinquennial assessments made through the ordinary rating machinery, from whatever causes such increases arise other than by certain recent expenditure of the owner.

We have shown that, of the existing methods for recovering "betterment" 308
in its strict sense of increase in the value of land due to particular public improvements or provisions of planning schemes, set-off has been of little practical effect; that direct charge under the Town Planning Acts has been a failure; and that there is no prospect that either method will be any more successful in future, mainly because their first requisite is one which cannot be satisfied, viz., the identification or segregation of the strict "betterment" element in the total increase in value of any property. The only successful existing method is recoupment which suffers from no such disability, for, where a public authority disposes of land which it has bought, the whole of any increase in value is automatically obtained for the community and the general or particular causes which have created it are irrelevant.

We are forced to the conclusion that no *ad hoc* search for "betterment" in its present strict sense can ever succeed, and that the only way of solving the problem is to cut the Gordian knot by taking for the community some fixed proportion of the whole of any increase in site values without any attempt at precise analysis of the causes to which it may be due.

309 One method which has been advocated of measuring increases of site value involves an initial valuation on a capital basis of all land in the country at a given date, this initial valuation being the datum line from which subsequent increases would be measured by revaluations at periodic intervals, a levy being made after each revaluation on the increases so revealed . . . The initial capital valuation would, however, take some years to make and would reach finality only after appeals had been determined. The subsequent periodical valuations, though they would not take so long as the initial valuation, would still require a considerable time to make. To make an initial valuation, and subsequent revaluations, of the capital value of all the hereditaments in the country would be a very expensive matter, and, in our view, the cost would be out of all proportion to the total amount of increment which might be recovered. There is, for instance, likely to be little increase in the case of ordinary dwelling-houses, which constitute the greatest number of properties. Increases in site values occur mostly in the case of undeveloped land as and when it is ripening towards development . . . .

310 Fundamental principles to which any method for assessing and collecting a levy on increases in land values should conform if it is to be equitable and administratively practicable . . . are:—

(1) So far as the increase in value is due to the enterprise and expenditure of owners and developers, it must be excluded from charge—there must be no tax on improvements. This can only be secured by limiting the subject of the levy to increases in the value of the site, and further, excluding from the increase in site value such part, if any, as has been created by the owner or developer, though, as a practical matter, this exclusion may have to take the form of an allowance of a fixed proportion of the total increase. Subject to this allowance, all the increase in site value, whether due to specific public improvements or to planning schemes or general community influences, is, however, a proper subject for levy.

(2) Before any increase in site value can become a proper subject for levy, it must not only have occurred and have been proved, but must also have been realized or enjoyed or be realisable.

(3) There must be no duplication of the levy. The recovery of "betterment" by direct charge or by set-off against compensation payable on public acquisition of land or for injurious affection, whether under general or local Acts, should accordingly cease to operate.

(4) The community's share of increases in site values must be secured by one method and by one authority however the proceeds may be ultimately applied . . .

We propose—

311 (1) That, as soon as the necessary legislation is passed, there shall be ascertained the annual site value of every rateable hereditament as actually developed, such value to be a fixed datum line from which to measure all future increases in annual site values. No valuation is to be made in the case of agricultural land and farmhouses.

(2) That a revaluation should be made every five years of the annual site value as then developed.

(3) That there should be a levy in each of the five years following each revaluation of a fixed proportion (say 75 per cent) of the amount of any increase in the annual site value over the fixed datum line as revealed by the revaluation.

(4) That the levy should be borne by the person actually enjoying or capable of realizing the increased value.

(5) That the necessary valuations should be made through the existing valuation machinery for ordinary rating purposes, and entered in the rating valuation lists

APPENDIX K

PREFABRICATION AND BUILDING TECHNIQUES

The term "prefabrication" means so many things to different people that it is necessary to define it before its relation to improved building methods can be understood. In particular, two aspects of structural problems, *prefabrication* and *dimensional co-ordination*, should be clearly distinguished, even though there are important relations between them.

I. *Prefabrication*

Prefabrication as applied to the building industry is associated by some primarily with mass production of parts and equipment, by others mainly with the production of whole sections in a factory and their transportation to the site. Neither of these conceptions is completely correct. A door of specific dimensions ordered from a factory by a contractor for his client may be prefabricated, but need not be mass-produced. On the other hand recent development of the house-building industry, particularly in connection with large-scale war housing projects has made possible the prefabrication of whole sections such as walls, floors and roof on or near the building site. Prefabrication is simply a degree of organization, or co-ordination of production and design—"in such a way that parts . . . of the work may be designed and fabricated as sections which fit together in a way that is practically, economically and aesthetically satisfying".[1]

It is useful, further, to distinguish between two types of prefabrication, namely shop (or factory) prefabrication, and job (or site) prefabrication.

Shop prefabrication refers to the production of equipment, parts and sections, in a factory whose location is fixed. The advantage of shop prefabrication is that once a certain degree of co-ordination of dimensions and certain standards of quality have been accepted by the public at large, mass prefabrication of the various parts which make up a complete house will be a matter of standard practice rather than experimentation as it is at present. The shortcoming of shop prefabrication is the limitation imposed by the distance from factory to building site. If the distance is great, freight charges whether by rail or truck may be so high as to nullify the economies gained by the production of multiple parts in a factory. There are also difficulties to be overcome in shipping parts which will not stack compactly. The economical loading of trucks, the careful piling of parts upon unloading, and other problems of transportation, are all factors which affect the final costs of the house. Poor or loose packing may cause damage to the parts and sections, and if these cannot be repaired on the site, they may hold up the assembly of the house, thus causing increased cost of erection.

A variant of shop prefabrication is the type commonly called the "pre-cut system". By this system building material is cut in the factory according to the exact sizes required on the job. The pre-cut material is transported to the building site and assembled there. This system saves labour costs by the

[1]Arthur C. Holden: "Prefabrication" *The Review of the Society of Residential Appraisers*, Chicago, August 1942, p. 12. In preparing this Appendix, reference has been made to this article, to *A History of Prefabrication* by A. Bruce and H. Sandbank, published by the John B. Pierce Foundation (New York, July 1943), to *Prefabrication in Timber: a Survey of Existing Methods*, by C. Sjostrom, published by The English Joinery Manufacturers' Association Inc. (London, June 1943), and to a memorandum by C. B. K. Van Norman, one of the members of the Subcommittee.

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use of modern machinery and brings additional savings because only the material required is transported to the site and not the material which is usually wasted in building the customary house.

Job or site prefabrication refers to the prefabrication of parts and sections on a mass-production basis on or near the building site, usually taking place within some temporary structure, or possibly simply a roof to afford some protection from bad weather. This system has been extensively developed for large-scale housebuilding for war workers in the United States. In practice, job prefabrication means that for the making of a whole wall, roof or floor sections, the factory is moved to the site, while other supplies, e.g. building and heating equipment, pipes, etc., are shop prefabricated and transported to the site.

The apparent advantage of the job prefabrication system is the lowering of transportation costs for such bulky parts as whole wall sections. The disadvantage, as compared with shop prefabrication, lies in the fact that job prefabrication can only be applied to large-scale housing developments, since it does not pay to apply site prefabrication methods to the erection of a single house or a small number of units. In fact, it has been found that the economies realized by factories with fixed location which can specialize in the mass production of certain parts and equipment are important enough to outweigh considerations of transportation costs.

It is likely that the prefabrication methods which will be followed in the near future will be a combination of shop and job prefabrication methods. Consideration should be given to the best method of applying both systems, so as to dovetail their economies and advantages for large-scale low-rent housing and assisted home ownership, respectively. The public at large as well as the governmental authorities, faced with the responsibility of raising housing standards in the most efficient way, share a keen interest that this study should be made.

Progress in Prefabrication.

In spite of certain limitations attaching to present methods, there is no doubt that much of the waste of traditional housebuilding methods can be eliminated by factory production of parts and sections. In the custom-built home each tradesman had to perform a variety of duties, affected by weather, layoffs and temporary recesses caused by the slow progress of work of other tradesmen or delays in the deliveries of materials. In factory production, where efficient organization under single management is possible, many of these disadvantages are either eliminated or reduced to an absolute minimum. Workers acquire special skill in performing certain operations. The worker, instead of using a saw manually, supervises a machine that does the operation. The saving of labour and energy results in a considerable reduction of the unit costs of the final product, while the market for the product is enhanced by reason of lower price and, more often than not, superior service.

Research conducted by a number of building material manufacturers and trade organizations has focussed on the advantages of prefabrication methods over traditional methods for many years, but it is only in the last decade or so that technical progress has made itself evident. The differences between the current prefabricated units and conventional construction are now better known. Mostly, these differences are matters of what has been called "house engineering" and have to do with the more economical and effective use of a range of materials. Because of the "dry wall panel systems" now in use in prefabrication, a stronger and stiffer structure is produced than that of conventional construction. The resulting house is less subject to cracking finishes, settlement, etc., than houses built in the ordinary way, and is likely to be better insulated, less drafty and easier to heat. In many cases these improvements have been accomplished with considerably less material, both for framing

and finishes, than conventional methods ordinarily require. The process of re-engineering has been developed by architects and construction specialists regardless of whether the basic material employed was concrete, steel or wood, and even where no conscious effort was made to produce a newly designed structure. Fundamentally, it has been due to the fact that the pre-assembly of surface and framing materials, besides reducing the need for site labour, results almost automatically in a more-or-less complete utilization of the "stressed covering" principle used in airplane construction. Almost any type of panel unit in which surfacing materials are applied to the frame in the shop achieves added strength and stiffness from the addition of the surface materials, and it is only natural that advantage is taken of this fact in designing the structure as a whole.

One of the first systems of prefabrication to take full advantage of the "stressed covering" principle with consequent lightening of the structural frame was that developed by the Forest Products Laboratory (United States) in 1935. Through application of this principle, the bulk of the material used in the floor panels was reduced by almost one-half as compared with conventional construction, and the material used in the walls reduced by more than two-thirds. Despite this considerable saving in materials, tests showed that the resulting structure was three times as strong as was needed to meet average conditions.

One company, the Homasote Company of Trenton, carried the process of re-engineering begun by the Forest Products Laboratory a stage further, through the application of the structural principle of "pre-stressing". This method, used in the Homasote "Junior" system of construction to reduce the size of the studs, was based on a fundamental property of the insulating material used to cover both sides of the panel—the fact that it expanded considerably when moist. By gluing the insulation-board faces to both sides of the frame while in a moistened state, so that when dry both sides of the panel would shrink drum-tight, a thin panel ($2\frac{1}{4}$ in.) was produced that was as rigid as the $4\frac{1}{4}$ in. panels made with dry material and 2 x 4 in. studs. This method of construction has been used extensively in large-scale war housing developments in which Homasote material was used.[1]

Prefabrication and the Architect.

The claim is often made that prefabrication involves great limitation upon design. Competent architects, however, claim that prefabrication of houses limits the design only very slightly and, in fact, systems which have been developed using a module, are an aid to design. This module is usually based on the width of panel necessary to contain a door or window. (The small number of differently sized doors and windows which are required in the average house is a fact not sufficiently recognized.) The sizes of houses are not limited by this requirement, prefabricated basement walls have been developed, and one, two or three stories may be used. Room sizes are not limited by the maximum span of the floor construction. Another influence on the module size is the type of interior wall or lining used.[2] There is nothing in these details of design which need deter the architect interested in meeting the challenge of large-scale housing provision. The architect is at present in about the same position as the automobile designer was at the beginning of the present century. If the design of motor cars had been left entirely to the production engineer who is

[1]Bruce, A. and H. Sandbank. *A History of Prefabrication*. John B. Pierce Foundation. New York. July 1943. pp. 70-72. The comment is made by some critics of schemes proposed for reduction in sizes of studs, that a similar advantage could be arrived at in the traditional method of construction, if more study would be given to stress analysis of the small house. In other words the advantages derived from a reduction in sizes of studs are not confined to prefabrication only.

[2] For further discussion see B. H. Wright, "Prefabrication", *Journal of the Royal Architectural Institute of Canada*, Toronto, September 1943. p. 159. Some observers claim that most common materials in use today will not remain sufficiently stationary (against changes in moisture and temperature) to prevent joints from opening.

mostly interested in good performance from the finished product, the motor car of to-day would undoubtedly be efficient but probably much less attractive in appearance. The same applies to the prefabricated home of the future. If the architectural profession accepts responsibility for the design, convenience and attractive appearance of the mass-produced house, the prefabricated home can prove just as desirable to the public as the traditional house built in the handicraft methods of the past has ever been.

The importance which architects may play in the development of the prefabricated house of the future is illustrated by the results of a recent survey in the United States. The overwhelming majority of prefabricating firms stated either that they would keep salaried architects on their staffs, or that they would employ independent architects as the occasion demanded it.[1]

Prospects of Prefabrication.

The prospects of prefabrication methods as applied to the house-building field are perhaps best illustrated by a summary of views held by prefabricating firms themselves. There have been few if any pronouncements on the subject by Canadian firms as yet, although considerable interest in the subject is becoming manifest, particularly by war industries concerned with the post-war adaptation of their plants. *The Architectural Forum* in the United States recently conducted a survey of post-war plans by prefabricating firms and reached the interesting conclusion that "the most striking impression which emerges from the tabulated returns is that the prefabrication industry, as the bogey of conventional builders and conservative material manufacturers, has been vastly overrated. The overwhelming majority of prefabricators, by their own admission, have little hope of more than nibbling at the edges of the huge, million-house-a-year post-war home-building pie. Almost to a man, they visualize localized, or at most, regionalized operations on a scale smaller rather than larger than their present share in war housing. And their projected product, if present plans are any indication, will differ but little from the pre-war house as built by conventional methods".[2] In interpreting this judgment, it should be remembered that there has been more extensive resort to mass-assembly methods in the United States, and the volume of wartime construction (proportionately speaking) has also been greater.

On the other hand, prefabrication has been described as the story of "the first faltering steps of an infant industry which may yet grow up to supplant the parent which gave it birth".[3] In other words, better and more economical building under modern conditions can still go far. The task should attract material manufacturers, builders, economists, as well as architects and engineers.

II. *Co-ordination of Dimensions*

The objective and advantages of co-ordination of dimensions applied to building can be best explained by reference to research in this field which is being carried out in the United States. The most outstanding example is "Project A-62" which was organized in July 1939, under the joint sponsorship of the American Institute of Architects and the joint industrial and professional group known as the Producers' Council, Incorporated. The purpose of the project, which represents a co-operative effort of the American building industry, is described in the following terms: (*a*) the development of a basis for the *co-ordination of dimensions* of building materials and equipment, and the correlation of building plans and details with such dimensions, and (*b*) recommendations on sizes and dimensions as *standards* suitable for dimensional correlation.

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[1] "Prefabrication's Postwar Plans", *The Architectural Forum*, New York, January 1944. p. 66.

[2] *Ibid.* p. 65.

[3] Bruce, A. and H. Sandbank, *op. cit.* p. 76.

The proposed basis is a four-inch module, and the objective of co-ordination of dimensions is to secure for the building industry economies and simplifications which other industries have found effective. It is *not* directed at standardizing designs of buildings. The use of standardized building materials and accessories is quite compatible with variety in building designs and dimensions sufficient to satisfy differences of personal taste.

The advantages of a standard system of dimensions of building materials and equipment have been summarized as follows:[1]

1. *For the Manufacturer (and Distributor).*

(*a*) Elimination of duplication in stock sizes.

(*b*) The solution of problems of standardization which various industries manufacturing building supplies are trying to solve individually.

(*c*) A stimulated demand for stock sizes in preference to special sizes, as a result of their more convenient and economical field erection.

(*d*) Lower costs of manufacturing against stock as compared with the custom manufacture of special sizes and details.

(*e*) Improved precision and uniformity of quality that result from improved manufacturing processes.

(*f*) A market for standardized building materials where the cost of special detailing or field cutting would be prohibitive.

(*g*) Standard assembly details help the manufacturer to control the installation of his products and thus avoid complaints that arise from faulty workmanship.

2. *For the Architect.*

(*a*) A simplified method of designing the building layout which will reduce drafting time.

(*b*) The possibility of changing specifications and substituting alternate materials without redrawing his layout.

(*c*) The elimination of redesigning and repetitive drawing of structural assembly details.

(*d*) The increased availability of many building products as a result of their improved standardization and a consequent simplification in specifications.

(*e*) The replacing of special details by stock items, so that the designing and detailing for these items is simplified.

(*f*) Easier supervision of the job as a result of standard building practice.

(*g*) The unity of design that results from the application of a single dimensional unit, both vertically and horizontally, to the building structure, openings, and finish, and to various exterior features such as garden walls.

3. *For the Builder and Contractor.*

(*a*) The improved accuracy of standard assembly details.

(*b*) The simplification of tenders by the elimination of fractional inches and probably by the tabulation of nominal areas.

(*c*) Lower cost of field erection by the reduction of field cutting and fitting; also reduced transportation expenditures, since building materials are brought to the site in required dimensions and there is no carrying of waste materials.

(*d*) The possibility of developing a uniform building practice with better control of field operations.

[1] "Increasing the Efficiency of the Construction Industry", *Engineering and Contract Record*, Toronto, January 19, 1944, p. 26 *et seq.* Also *Project A-62 for Co-ordination of Dimensions of Building Material and Equipment*, The American Standards Association, New York, 1941, p. 4 *et seq.*

4. *For the Consumer*

(*a*) Free choice of the design of the building is retained. Standardization of parts does not mean standardizing the design of the building.

(*b*) Lower cost of acquisition.

(*c*) Assurance of better construction because the possibility of faulty installations is considerably reduced.

(*d*) Cheaper repairs because interchangeable parts can be secured at low prices and costs of fitting are reduced.

It is often claimed that the rise of building costs on account of the war may constitute a serious obstacle to a large-scale postwar housing program. It is conceivable, however, that proper co-ordination of dimensions together with the systematic development of prefabrication methods might not only reduce building costs to the prewar level but even go beyond it if a substantial and continuous housing market is assured. Much will depend on the degree to which the advantages of dimensional co-ordination are made known to industry and the public at large, and accepted by them. It is of serious practical concern, also, that the way should be cleared for modern constructional methods by the revision and adaptation of local building codes (to which reference is made in Chapter 11).

While the development of prefabrication methods may largely be left to manufacturers and the construction industry in co-operation with professional groups, research on co-ordination of dimensions may not get done without governmental stimulus and participation. The matter is of such importance that some steps should be taken now by the appropriate Dominion government agencies in consultation with the various groups especially interested in this particular development of building technique.

SECTION C.—STATISTICAL APPENDIX

Statistical Notes:

A. Statistics of Housing Supply.

B. Age of Urban Housing.

C. Definition of Urban and Rural Areas.

D. Income Statistics Relating to Tenant Families.

E. Application of "Block Method" to Replacement Program.

Supplementary Tables

Classified Index to Statistical Tables.

List of Charts and Tables.

STATISTICAL NOTE A

STATISTICS OF HOUSING SUPPLY

Several series of official statistics (listed below) provide information on residential construction and housing standards, the latter principally from the decennial censuses, but only a few of these specify, or measure, numbers of units built. In particular, there does not exist an annual series of the number of housing units built for urban aggregates or for Canada as a whole. The situation was not remedied until 1942 when a compilation of the number of housing units currently built, covering 204 communities, was commenced by the Dominion Bureau of Statistics.[1]

Sources of Material

1. *Population Census.* At every census date the total number of dwellings in existence is enumerated with certain definitive separations (e.g., vacant dwellings, abandoned farms). Information in terms of dwelling units is available back to 1901, and in terms of "houses" prior to that date. Information on buildings, including residential dwellings, has been gathered since 1931. Additional information is available on types of dwellings, exterior materials, tenure, value and rents. No information is available on the number of units newly built within a given period, though, of course, net increases over decennial periods can be deduced by combination. (Qualifications which attach to such figures are referred to below.)

2. *Housing Census.* Information on housing standards and an extensive series on other relevant measurements, with detailed regional and local subdivisions, are provided by this special part of the Population Census. It does not provide data, however, on the number of housing units built, or on age of houses. In 1941 the first separate Census of Housing was taken on a ten per cent sample basis, covering urban and rural areas, with favourable results in speed of tabulation and analysis. Bulletins relating to dwellings in the larger urban centres and to farm homes have now been published in considerable number by the Housing Census Branch of the Dominion Bureau of Statistics.

3. *Construction Census.* The gross value of construction is here recorded, classified (*a*) according to residential, industrial, commercial and other types of construction, (*b*) new and repair construction, and (*c*) work carried out by private contractors (general, trade and subcontractors) and directly by public authorities. Statistics are available back to 1934. Some construction statistics are available for 1920-1922, collected as part of the Census of Industry, but there is a gap in the statistics from 1923 to 1933. The Construction Census (*Report on the Construction Industry*) is published annually by the Construction Census Branch of the Dominion Bureau of Statistics.

The Construction Census does not include any information on the number of units built. Residential construction is measured in value terms; but its coverage is not complete as it excludes the following types: (*a*) work carried out by the home-owners themselves; (*b*) work carried out by craftsmen whose volume of business is small (e.g., village carpenters). In addition, certain types of residential construction (work carried out by trade contractors) are included in the Construction Census, but are not listed as residential construction.

[1] *Building Permits Issued in Canada.* Dominion Bureau of Statistics. May 1943, Vol. 4, No. 5, and subsequent bulletins.

4. *Building Permits.* These tabulations contain data on the value of building permits of all types (residential, office and factory buildings, etc., new construction, alterations and major repairs) issued in certain cities. The following coverage is available: for 204 municipalities back to 1940; for 58 municipalities back to 1920; for 35 municipalities back to 1910. Monthly and annual summaries are published by the Construction Census Branch of the Dominion Bureau of Statistics.

Classifications of building permits according to type (residential, industrial, commercial and other) are available from 1940 on only. The important series already referred to, i.e., the number of dwelling units for which building permits are issued, are available for 204 communities from January, 1942, on a monthly basis. They distinguish new units built and new units added by remodelling or reconversion.

5. *Contracts Awarded.* (MacLean Building Reports.) Statistics on contracts awarded for different types of construction projects (collected and published monthly by the Hugh C. MacLean Publications Limited, Toronto) are available back to 1911. Separation of residential contracts has been made since 1918.

Contracts awarded can be used as an indicator of trends, especially in conjunction with the series on building permits issued; but they are liable to serious misinterpretation if used as indicators of the volume of residential construction activity. The contracts recorded relate only to projected work. Sometimes contracts are cancelled, while in other cases work contracted for towards the end of any one year is often not commenced until the next year.

The coverage is apt to be incomplete as frequently no account is taken of additions to contracts already awarded. Furthermore, since the compilation is prepared by a private agency, information can be gathered only on a voluntary basis. If some builders do not want to part with information on the contracts which have been awarded to them, no account can be taken of these jobs. Finally, there is a substantial part of residential construction work carried out for which no formal contracts are awarded at all, e.g., when the prospective home-owner does not employ a contractor. The proportion of residential construction work carried out by home-owners and craftsmen whose activities are not recorded in the MacLean figures, can only be guessed at. No information is available on the number of housing units constructed.

6. *Indices of Residential Building and Rents.*

(*a*) Employment in building construction as reported by employers with 15 or more employees is available in index form back to 1921 (Dominion Bureau of Statistics).

(*b*) Wholesale prices of building materials are available back to 1913 (Dominion Bureau of Statistics).

(*c*) A rent index, as part of the cost of living index, has been computed for a large number of cities and towns since 1913 (Dominion Bureau of Statistics).

(*d*) Wage rates of building trades have been computed since 1910 (Department of Labour).

(*e*) Other indices, including some specially prepared for inclusion in this report, are referred to in Appendix B.

7. *Publicly-Assisted Housing.* Monthly statistics of lending operations under various housing acts (Dominion Housing Act, 1935, Home Improvement Loans Guarantee Act, 1937, National Housing Act, 1938, Home Extension Plan, 1942, and the Housing Conversion Plan, 1943) have been compiled by the Housing Administration of the Department of Finance, since October, 1935. The information relates to lending values, expenditures involved and the number

of units built or improved. A summary of eight years' operation (1935-1943) has been published in the study entitled *The Labour Value of the Building Dollar*. There are no printed annual reports.

8. *Wartime Housing.* Some information on operations of Wartime Housing Limited for the period February, 1941, to October, 1943, is given in Appendix D. There are no printed annual reports.

9. *Municipal Housing Statistics.* Annual reports are published by some of the larger cities. Some of these reports include information on the number of residential buildings constructed, but there is no conformity of compilation. Statistics from municipal housing reports are very rarely comparable with data on dwelling units compiled by the Construction Census Branch since 1942, because the latter relate to dwellings, while the former most frequently relate to buildings containing dwellings.

Measurements of Growth in Housing Supply

Only careful combinations of these various materials with their limitations and definitions kept in mind can be used to arrive at a workable estimate of the number of physical units built year by year in recent decades. The *net increases* of dwellings in urban and rural areas during the period 1911-1941, as deduced from the census counts, are shown in the table below. (*a*) It is important to realize that these figures do not represent the *total* number of dwellings actually constructed. They do not provide any information of how many new dwellings were built which replaced destroyed and demolished units. (*b*) Moreover, after allowance for these omissions permits an estimate of the *total* number of dwellings, it cannot be said that the building during 1921-1931 thus measured was on a desirable level. (It would be generally admitted that building in the preceding and subsequent decades was unsatisfactory.) It is true that more units were built during 1921-1931 than in the other two decades, but this does not mean that housing conditions were entirely satisfactory for all income groups, even at the height of the building boom.

TABLE 68.—NET INCREASE OF DWELLINGS, 1911-1941

Period	Number of dwellings			Average net increase per year
	Urban areas	Rural areas	Canada	
1911-21	209,000	146,000	355,000	35,500
1921-31	362,000	101,000	463,000	46,300
1931-41	231,000	178,000	409,000	40,900

Source: Population Censuses, 1911-1941. Urban figures for 1911-31 include some dwellings in areas previously classified as rural.

Sufficient new units were probably built to meet the requirements of families in the upper and medium income brackets. But a substantial proportion of the population belonging to the lower income group and some sections of the medium income group, could not afford to acquire good housing accommodation or move out of slum districts (which had grown more or less unchecked with the deterioration of central urban areas since the beginning of the century). There may even have been a surplus of houses in some areas at the end of the 'twenties, while the basic housing requirements of families in the low-income group and certain sections of the medium-income group were not met. This is borne out by the overcrowding statistics of the 1931 Census, and by inference from the income-rental statistics of 1941.

(*c*) Finally, the comparatively large-scale building activity of the late 'twenties was not accompanied by an orderly replacement program of obsolete units, and by no provisions, other than incidental ones, for slum clearance at all. The result was an increase in the number of new good-quality homes but at the same time a substantial increase in the number of slum and substandard dwellings. Obviously, the situation became worse in the 'thirties because of the decline in residential construction as well as the increased demand for cheap rentals.

It is evident from these considerations that an estimate of either backlog or future annual building requirements which is computed, not on the basis of past performance, but of minimum accommodation needs of all family and household groups, must be considerably larger than the first approximation figures derivable from the Census counts referred to above.

The estimate of the number of dwellings built in the urban areas of Canada for the period 1922-1939, used in Chapter 1, was prepared by means of the following steps:—

(*a*) The net increase in the number of dwellings for the periods 1921 to 1931 and 1931 to 1941 was determined from the Dominion Censuses (as in the table above).

(*b*) Estimates were made of the number of dwellings destroyed or demolished during the two periods, and added to the net increase of dwellings. For methods used, see Statistical Note B.

(*c*) Residential contracts awarded were used as indicators of the trend of building activity during the two decades, after the figures available had been adjusted for changes in cost of construction (by dividing value of contracts awarded by cost of material index) and carried forward for a period of five months to allow for the completion of building contracts. A period of five months is convenient because it brings the census year in coincidence with the calendar year.

(*d*) The total number of dwellings built during the two decades (net increase plus new dwellings replacing destroyed and demolished dwellings) was distributed according to the pattern of residential construction activities shown by adjusted figures of residential contracts awarded, and the results were transferred from a census year basis to a calendar year basis by combining five-twelfths of one year with seven-twelfths of the following year.

The estimate of the number of dwellings built during 1941 and 1942 (Chapter 6, Table 44) differs from the above estimates in that a different method of computation was used:—

(*a*) A special tabulation from the Building Permit series yielded the approximate number of dwellings built in 204 communities.

(*b*) Allowance was made for urban communities not covered, based on the assumption that building activity of the centres covered (more than three-fourths of the total) was of similar dimensions to that carried out in communities not covered by the building permit series.

(*c*) Addition of the results of the special compilation for 204 communities and the allowance for communities not covered, yielded the total number of dwellings built in urban Canada during 1942.

(*d*) The estimate for 1941 was based on the assumption that the number of housing units constructed in this year declined in the following year in the same proportion as the value of building permits issued for residential construction.

STATISTICAL NOTE B

ESTIMATED AGE OF URBAN HOUSING IN CANADA

For several reasons it is valuable to attempt some estimates of the age of the present Canadian housing supply. For one reason, some special indications of city growth are revealed by a study of the age of houses situated within the bounds of the older cities. But even more important is the light thrown on the degree of obsolescence which prevails and the need for "normal" measures of replacement. Such an estimate is difficult, however, because of the lack of direct data.

The estimate tabulated below is based on two components: (*a*) the net increase of dwellings, data for which were obtained from the population censuses of the Dominion Bureau of Statistics, 1871-1941; and (*b*) the number of destroyed or demolished dwellings. The latter involved a collation of the following information: (i) sample studies made for certain Canadian cities; (ii) the experience that the number of buildings destroyed or demolished rises in a period of great building activity and declines in a period of little building activity; and (iii) information available on the replacement rate in Great Britain and the United States. The replacement rate is the ratio of dwellings torn down or otherwise destroyed during a decade to the number of dwellings at the beginning of the decade. The Canadian replacement rate varies for different cities and for different periods, and is not necessarily comparable with the British and American replacement rates.

ESTIMATED AGE OF DWELLINGS IN URBAN CANADA (AS AT 1941)

Age in years	Dwellings	
	Number	Per cent
1–10	254,100	17·7
11–20	386,500	26·9
21–30	226,200	15·7
31–40	271,200	18·9
41–50	94,800	6·6
51–60	85,000	5·9
61–70	88,800	6·2
Over 70	30,200	2·1
Total	1,436,800	100·0

One important qualification is necessary. In a consideration of the age of houses in urban areas as a whole, a statistical percentage necessarily conceals the fact that there are a great number of old buildings in the part of the country settled more than one hundred years ago. The explanation is that overall statistics of the age of houses relate to all urban centres (old and new communities) and do not indicate where old buildings are concentrated.

The import of the compilation is that of the 1,437,000 dwellings which existed in 1941, only about 14 per cent, or over 200,000, were more than fifty years of age. If, however, it is taken into account that the majority of these old dwellings are distributed among the 17 cities in eastern Canada over one hundred years of age, it becomes clear that housing conditions in many of the old eastern cities are aggravated by a comparatively large proportion of old buildings. This is not to say that some of the old houses have not been kept in

good repair and have not been modernized to meet housing requirements of our time. The fact, however, remains that we have accumulated a substantial number of old houses, many of which are defective by modern housing standards and are in need of replacement.

It would appear that the period of expansion and development from the beginning of the century to the outbreak of the First World War was accompanied by a considerable expansion of residential construction which not only provided new homesteads for the many immigrants of that period, but was perhaps enough to raise somewhat the housing standard of the resident population. This trend towards improvement of housing conditions was interrupted during the war from 1914-1918, and modern housing history—more particularly, the history of interest in national legislation on the subject—really starts in 1919. This is outlined in Chapter 1 which also includes estimates of annual building from 1922 on.

STATISTICAL NOTE C

DEFINITION OF URBAN AND RURAL AREAS

This note explains further the differences between the definitions of the principal urban and rural areas adopted in this report and those used in the Census; and also includes some qualifications which attach to the statistics presented in Table 9 of Chapter 4.

(1) The "metropolitan areas" or "Greater" cities, twelve in all (total population 3,715,000), actually comprise 15 cities of population of 30,000 and over (total population 3,021,000), a number of smaller cities, towns and incorporated communities (total population 299,000), and a group of non-incorporated communities (total population 395,000). "Other large cities" constitute the remaining 12 cities with populations of more than 30,000 which do not have satellite communities, e.g. Edmonton (total population 553,000). The "major cities", twenty-seven in all, are comprised of the 15 large cities which form part of the metropolitan areas and the remaining 12 cities with populations of 30,000 and over (total population 3,574,000).

(2) The definition of small cities, towns and incorporated communities used in this report (total population 2,378,000) produces a slightly smaller aggregate than the areas described as such in the Census (total population 2,677,000) because of the inclusion of some of those areas in the definition of "Greater" cities. For similar reasons, there are differences in the size of rural non-farm and farm areas, as between the figures used in the present report and those of the Census.

(3) Whenever no information was available for the twelve metropolitan areas, figures for the major cities were used. A special allowance for non-incorporated communities which form part of the metropolitan areas was made separately, where this was necessary. Incorporated parts of metropolitan areas were, in such cases, accounted for in the remaining urban centres.

(4) Data on dwellings are preliminary figures and are subject to revision. The statistics given relate to both occupied and vacant dwellings. Throughout the report, these totals are used, but where reference is made to occupied dwellings only, this is specifically denoted. According to the Census, vacant dwellings were distributed as follows:—

Urban centres: 22,000, or 1·5 per cent of the total;
Rural non-farm areas: 14,000, or 3 per cent of the total;
Farms areas: 27,000, or 3·7 per cent of the total.

(5) The question arose whether it would have been advisable to exclude small incorporated communities with very small populations (less than 1,000) from the group defined as "small cities, towns, and incorporated communities", adding this section of the population to persons living in rural non-farm areas. This distinction would have been advisable if it were certain that separate legislation is needed to care for the requirements of the rural non-farm areas. The distinction was not carried through, however, in the belief that urban housing legislation, if it is reasonably flexible, should be applicable to those areas and since, furthermore, estimates of housing requirements for these areas have been added to the total urban at some points in the reports.

STATISTICAL NOTE D

INCOME STATISTICS RELATING TO TENANT FAMILIES

1. *Unemployment, Pensions and Other Benefits*

(*a*) The main source of additional income not covered in the study of rental and income relations of tenant families might come from unemployment, pensions and other benefits. Very few tenant wage-earners in the low income group possess capital assets or property from which they could draw interest, dividends or rents. No consideration needs to be given, therefore, to that type of additional income.

(*b*) The contention that low income recipients do not divulge all their earnings does not seem to be justified by the experience of the Dominion Bureau of Statistics. In the survey of family income and expenditures in Canada during 1937-1938, it was found that low income families tried to make a good impression on enumerators by giving as complete a picture as possible of their earnings. Families in the higher income brackets were more apt to withhold information on extra sources, or to make their earnings appear lower than they actually were.

(*c*) Unemployment benefits, whether through insurance or relief, were certainly at a minimum. When the Housing Census was taken in June, 1941, employment in this country had reached a peak higher than ever before in its history. The employment index of the Dominion Bureau of Statistics stood at 152·3 in 1941, taking 1926 as a base. In comparison with that peak in 1941, the employment index for 1929 showed only 119·0 (1926=100). That unemployment during 1941 was very small can be seen from statistics relating to persons out of work as reported by trade unions. During 1941, the proportion of unemployed workers across Canada varied between 2·4 and 6·9 per cent of the total organized labour force.

(*d*) Old age pensions, by law, cannot be received by persons with an existing income of more than $365 a year. Pensions of other types may be larger, but are received only on the condition of retirement. Workers receiving disablement pensions, if they are still at work, again, are invariably sub-standard earners by reason of their handicap. Soldiers pensions and Workmen's Compensation benefits therefore are probably the chief forms of unrecorded income, but these would be unlikely to raise many recipients beyond the $1,200 a year level. Workers with no earnings from wage sources at all were excluded from the compilations.

(*e*) Death benefits from insurance policies are apt to be used up for funeral costs in many cases and substantial incomes from these sources among unskilled or semi-skilled workers' families are exceptional if not non-existent.

2. *Allowance for Non-wage-earners*

As pointed out before, wage-earners represent the larger proportion of all tenants in the metropolitan areas. Nevertheless, some upward adjustment of annual earnings is desirable if the findings for wage-earners are to be applied to the tenant group as a whole.

According to estimates by the Business Statistics Branch of the Dominion Bureau of Statistics, the average annual income of employees in 1941 amounted to $1,228, while persons other than wage and salary earners, described broadly as working proprietors, had an average annual income of $1,359. (The earnings of farmers have been excluded from the computation of the average income of working proprietors in order to make the figures applicable to urban conditions).

Thus, in 1941, independent businessmen, merchants and professional people and recipients solely dependent on insurance, dividends and interests and rents, received, on an average, only about 10 per cent more than wage and salary-earners.

Allowing a ten per cent adjustment of annual earnings for non-wage-earners in the low income group and using the overall ratio of 70:30 for wage-earners to non-wage-earners, the average annual income of the whole tenant group (wage-earners and others) is raised to $796. This figure includes also an allowance for receipts of unemployment, sickness and other benefits. Nevertheless, these adjusted earnings are only about 13 per cent above the average family earnings of wage-earner tenants, excluding receipts from other sources than remuneration for work done.

3. *Lodgers and Multiple Family Households*

The Dominion Bureau of Stataistics has made a careful inquiry into the distribution of lodgers and there is little doubt that the great proportion of lodgers are housed in the upper income groups, in larger houses and those of higher rents than the lowest group to which the present figures relate. In particular, it was found that among families with lodgers the average number of lodgers per household increases steadily with increasing earnings per person among the main occupiers, indicating that boarders prefer to live with families in a high income bracket. Furthermore, families forced into the lower rental groups by poverty very rarely have the extra accommodation necessary for taking in lodgers. Finally, the smaller the number of persons per room in a household, the greater the likelihood that a lodger will be taken into this household, thus indicating that lodgers avoid overcrowded households.[1] As pointed out elsewhere, overcrowding is concentrated among the poorer classes.

Another possibility which has to be taken into consideration is the expedient of "doubling up". A special survey showed that about 27 per cent of overcrowded households in the lower income group were occupied by two or more families. This is evidence that the main reason for overcrowding in the lower income group is not so much doubling up itself, as the inability of families to find large enough accommodations at rentals which they can afford to pay. While it is true that doubling up probably eases the rent burden of the main occupier, there is no doubt that doubling up intensifies overcrowding and is undesirable from the point of view of providing satisfactory housing accommodation.

[1] Dominion Bureau of Statistics: "The Canadian Family," Census Monograph, Ottawa, 1938, p. 77.

STATISTICAL NOTE E

APPLICATION OF THE "BLOCK METHOD" TO REPLACEMENT AND SLUM CLEARANCE PROGRAMS

An accurate measurement of the minimum number of dwellings in need of replacement because of obsolescence or because of their location in slum areas awaiting clearance, is particularly dependent on local surveys being undertaken in a uniform manner, both in major cities and in a number of small cities and towns where there is an obvious need for rehousing schemes. Such surveys would have the additional merit of yielding valuable factual information needed for proper town planning of the urban communities surveyed. If the surveys are so planned as to make them comparable with the Housing Census of 1941 (ten per cent sample), it will be possible to simplify the procedure considerably, in that material from the Housing Census could be used to supplement the findings of these special surveys. If the matter of local town surveys were within the realm of the Dominion Government, it might be expected that surveys could be undertaken and the results analyzed in a comparatively short period following agreement on that point by the Dominion Government and the municipalities. However, since the conduct of local surveys, including the assembly of factual information for town planning measures, will probably rest with the civic authorities, it may take a number of years to complete the surveys unless a special procedure for co-ordinated action is worked out.

As a first approximation it is estimated that 175,000 units require replacement in all Canadian cities and towns. Although this estimate has been based on carefully chosen criteria (based on the material of the Housing Census, 1941), and has been made conservatively in the light of information available, it would be desirable to check the estimate by examining the validity of the Housing Census figures as criteria indicating the requirements for replacement of dwellings and rehabilitation of blighted city areas. Such a check could be instituted at little expense by employing a broad definition of substandard dwellings and of slum areas and by applying it to the housing accommodation in a few of the major metropolitan areas. If comparable results are obtained for the sample blocks, the validity of the estimates presented here would be confirmed; if some discrepancies become apparent, the findings could be used for the adjustment of post-war estimates.

A similar problem was faced by the U.S. Housing Authority and the National Resources Planning Board when it was found desirable to check the validity of block data from the 1940 Census of Housing with a view to determining the dimensions of a housing redevelopment program. It is doubtful, however, whether American results are usable for Canadian purposes.

Although the examination of Census data has proved very valuable in the preparation of estimates of post-war housing needs in the United States, Canadian conditions are very different. Not only do the major cities of the two countries differ as to size, age of houses and the requirements of household conveniences, but the definitions used in the Canadian Housing Census (1941) do not conform to those used in the American Housing Census (1940). Furthermore, a Canadian post-war housing policy has to be formulated with regard to the proper apportionment of domestic resources, in carrying out a step-by-step program of improving housing standards. Thus, for example, houses which could be repaired and whose plumbing installations could be brought up to a minimum standard, could be allowed to remain for a number of years even if they do not possess bathing facilities such as bath tubs and showers. It is undoubtedly

desirable that every housing unit should have some kind of bathing facility, but it would be wise to concentrate first on the replacement of the houses so obsolete as to be definitely harmful to the health of their inhabitants. After this task has been completed, we can turn to a program designed to raise the standard of conveniences of the national housing supply. None the less, it will be helpful to consider the methods applied in the estimates made of the dimensions of a housing redevelopment program in the United States, many of which have been followed up by demolition and rebuilding schemes.

Twenty-two cities with a population ranging from 50,000 to more than 500,000 were subjected to analysis by the block method. According to this method, a block was considered as falling within a redevelopment area if at least 50 per cent of the dwellings within that block were substandard, i.e. in need of major repairs or without baths. In order that the significance of sub-standard housing accommodation might be more completely determined, the 50 per cent basis was supplemented by figures showing the number of blocks containing respectively 30 per cent and 40 per cent or more of substandard dwellings.

In addition, the number of dwellings subject to "scattered replacement" (need of major repairs) and "scattered rehabilitation" (dwellings without bath), defined as dwellings outside the redevelopment areas, were computed. The results of the analysis for the combined 22 cities are shown in summarized form in the attached table. According to the 50 per cent block method, the proportion of non-substandard dwellings to housing units in need of major repairs or without bath, situated in the redevelopment areas, varies between 25 and 50 per cent.

TABLE 69.—ESTIMATES OF THE SIZE OF A REDEVELOPMENT HOUSING PROGRAM THROUGH THE USE OF BLOCK DATA FOR 22 SELECTED CITIES (UNITED STATES), 1940

Block method based on proportion of substandard dwellings within blocks	Range of program as p.c. of total number of dwellings	Program as p.c. of total number of dwellings	Dwellings in redevelopment areas as p.c. of total number of dwellings	Dwellings needing scattered replacement or rehabilitation as p.c. of total number of dwellings	Dwellings in redevelopment areas as p.c. of program
50	18—60	32·2	21·7	10·5	67·3
40	20—63	35·6	27·8	7·8	78·0
30	23—68	40·3	35·1	4·8	86·8

Source: National Resources Planning Board: *Supplementary Report on Estimation of the Size of a Redevelopment Program through the Use of Block Data,* Washington, March, 1942.

The figure with most significance in a comparison of Canadian and American estimates of the proportion of dwellings in need of replacement, is the percentage of 21·7 representing the proportion of the number of dwellings in redevelopment areas to the total number of dwellings, on the basis of the 50 per cent block method. In the estimates used in the present report, only half of the number of substandard dwellings, which represented 24 per cent of all dwellings in the major cities, is taken as a minimum program for the replacement of obsolete housing units. To this half, representing 12 per cent of the total, has been added an allowance for non-substandard dwellings (i.e. those in need of external repairs or without flush toilets) situated in slum areas, calculated at 3 per cent of the total (one-quarter of 12 per cent). The Canadian replacement program in the major cities, therefore, amounts, on a minimum basis, to 12 per cent. This figure is 9·7 per cent below the American estimates. A Canadian maximum

replacement program would be about twice the size of the minimum program, but it would still be 11·1 per cent below the American redevelopment program based on the 30 per cent block method. This explanation may suffice to indicate the conservative nature of the Canadian estimates.

The following limitations are attached to the American technique: (1) No block tabulations were prepared by the Census for cities with population under 50,000, and certain assumptions had to be made regarding the nature of a redevelopment program in these cities. (2) Block tabulations are available only for cities proper and do not extend to the fringe areas. This limitation was disposed of by the assumption that all urban units in the fringe areas are approached in the same manner as all urban units in the country and that only scattered replacement or rehabilitation will take place in rural non-farm units in these areas. This assumption means that there are no redevelopment areas outside urban boundaries in the fringe areas. (3) No account is taken of units in blocks which are not included under any of the criteria established but which, for reasons of obsolescence or general dilapidation, should be made part of a large-scale redevelopment program.

The American block method can be applied to Canadian statistics available from the Housing Census of 1941, though different criteria (need of external repairs; lack of or only shared use of flush toilets) and different regional units will have to be used. The Canadian Housing Census is based on Census areas consisting sometimes of less than a block, sometimes of more than a block. As, however, one census division comprises rarely more than 300 units, and very often less, they are small enough to insure that the accuracy of the computation will not greatly suffer if these divisions instead of blocks are used.

SUPPLEMENTARY TABLES

TABLE 70.—SOME INDICATIONS OF URBAN GROWTH IN CANADA, 1871-1941

Year	Urban population (000's)	Urban population as percentage of total	Urban increase (preceding decade)		Index of growth 1901 = 100.		
			Absolute (000's)	Relative (%)	Total	Urban	Rural
1871	722	19·6	—	—	68·7	35·9	88·4
1881	1,110	25·7	387	53·6	80·5	55·1	95·8
1891	1,537	31·8	428	38·5	90·0	76·3	98·2
1901	2,014	37·5	477	31·0	100·0	100·0	100·0
1911	3,273	45·4	1,259	62·5	134·2	162·5	117·2
1921	4,352	49·5	1,079	33·0	163·6	216·1	132·1
1931	5,572	53·7	1,220	28·0	193·2	276·6	143·1
1941	6,252	54·3	680	12·2	214·2	310·4	156·5

Source: Data for 1871 to 1931 compiled from Table 3 of Census Monograph No. 6, "Rural and Urban Composition of the Canadian Population," Dominion Bureau of Statistics, Ottawa, 1938, p. 43; and for 1941, from Bulletin No. A-1, Census, 1941.

TABLE 71.—COMPARATIVE RATES OF INCREASE OF PRINCIPAL URBAN AGGREGATES, 1931-1941.(1)

Item	Total urban	Cities 30,000 and over	Cities under 30,000	10 metropolitan areas	10 cities	All Canada
Population in 1931	5,570,698	3,239,920	2,330,778	3,181,738	2,533,143	10,363,240
Population in 1941	6,250,619	3,573,500	2,677,119	3,553,114	2,767,362	11,489,713
Proportion of total population, 1931	53·7	31·3	22·5	30·4	24·4	——
Proportion of total population, 1941	54·4	31·1	23·3	30·9	24·1	——
Increase 1931-1941	679,921	333,580	346,341	371,376	234,219	1,126,473
Relative increase	12·2	10·3	14·9	11·7	9·2	10·9
Deviation from total urban increase	——	−1·9	2·7	−0·5	−3·0	——
Deviation from total national increase	1·3	−0·6	4·0	0·8	−1·7	——

Source: Data for 1871 to 1931 compiled from Table 3 of Census Monograph No. 6, "Rural and Urban Composition of the Canadian Population," Dominion Bureau of Statistics, Ottawa, 1938, p. 43; and for 1941, from Bulletin No. A-1, Census, 1941.

(1) Excluding Yukon and Northwest Territories.

TABLE 72.—INCREASE IN URBAN POPULATION, ABSOLUTE AND RELATIVE, SHOWING THE PERCENTAGE DEVIATIONS FROM THE TOTAL URBAN INCREASE FOR CANADA, FOR THE PROVINCES, 1931-1941.

Province	Urban Population		Increase		Deviation from total urban percentage and increase
	1931	1941	Number	Per cent	
Prince Edward Island	20,385	24,340	3,955	19·4	7·2
Nova Scotia	231,654	267,540	35,886	15·5	3·3
New Brunswick	128,940	143,423	14,483	11·2	−1·0
Quebec	1,813,606	2,109,684	296,078	16·3	4·1
Ontario	2,095,992	2,338,633	242,641	11·6	−0·6
Manitoba	315,969	321,873	5,904	1·9	−10·3
Saskatchewan	290,905	295,146	4,241	1·5	−10·7
Alberta	278,508	306,586	28,078	10·1	−2·1
British Columbia	394,739	443,394	48,655	12·3	0·1
Yukon	1,360	1,797	437	32·1	19·9
Canada	5,572,058	6,252,416	680,358	12·2	——

Source: Data for 1941 taken from Bulletin No. A-2 of Census of 1941, data for 1931 taken from Table 14, Volume II, Census of 1931, p. 141.

TABLE 73.—URBAN DISAGGREGATION, EXPRESSED IN TERMS OF COMMUNITIES AND URBAN POPULATION.

Province	Total urban communities		Declining communities		Proportion of declining communities	
	Number	Population	Number	Population	Number	Population
Prince Edward Island	8	24,340	3	2,092	37·5	8·6
Nova Scotia	45	267,540	5	7,419	11·1	2·8
New Brunswick	25	143,423	4	6,001	16·0	4·2
Quebec	444	2,109,684	110	91,959	24·8	4·4
Ontario	332	2,338,633	88	114,273	26·5	4·9
Manitoba	57	321,873	27	26,991	47·4	8·4
Saskatchewan	474	295,146	273	146,733	57·6	49·7
Alberta	201	306,586	74	30,029	36·8	9·8
British Columbia	52	443,394	17	34,414	32·7	7·8
Yukon	2	1,797	—	—	—	—
Canada	1,640	6,252,416	601	459,911	36·6	7·4

Source: Compiled from Bulletins No. A-1 and A-11, Dominion Bureau of Statistics, Census, 1941.

TABLE 74.—URBAN DISAGGREGATION IN TERMS OF THE CITIES, TOWNS, AND VILLAGES WHICH DECLINED DURING 1931-1941.

Province	Number of urban communities	Population–Number		Decrease	
		1931	1941	Number	P.C.
Prince Edward Island	3	2,205	2,092	113	5·1
Nova Scotia	5	7,825	7,419	406	5·2
New Brunswick	4	6,288	6,001	287	4·6
Quebec	110	100,919	91,959	8,960	8·9
Ontario	88	123,896	114,273	9,623	7·8
Manitoba	27	30,217	26,991	3,226	10·7
Saskatchewan	273	159,801	146,733	13,068	8·2
Alberta	74	33,586	30,029	3,557	10·6
British Columbia	17	37,569	34,414	3,155	8·4
Canada	601	502,306	459,911	42,395	8·4

Source: Compiled from Bulletin A-11, Dominion of Bureau Statistics, Census 1941.

TABLE 75.—ABSOLUTE GROWTH IN POPULATION AND DWELLINGS, MAJOR CANADIAN CITIES (POPULATION OVER 30,000), 1921-1941.

City	Population	Dwellings[1]	Increase in population		Increase or decrease in dwellings	
	1941	1941	1921-1931	1931-1941	1921-1931	1931-1941[1]
Halifax	70,488	13,514	903	11,213	2,108	2,181
Saint John	51,741	11,862	348	4,227	3,861	1,022
Montreal	903,007	198,886	200,071	84,430	75,066	28,916
Quebec	150,757	26,894	35,401	20,163	7,287	3,994
Verdun	67,349	16,026	35,744	6,604	9,150	2,146
Three Rivers	42,007	7,374	13,083	6,557	2,340	1,532
Sherbrooke	35,965	7,556	5,418	7,032	2,073	1,939
Hull	32,947	6,095	5,316	3,514	936	860
Outremont	30,751	6,917	15,392	2,110	3,325	847
Toronto	667,457	143,140	109,314	36,250	38,306	11,239
Hamilton	166,337	39,889	41,396	10,790	10,991	4,772
Ottawa	154,951	32,535	19,029	28,079	7,187	5,746
Windsor	105,311	25,230	42,244	7,132	6,696	10,734
London	78,264	20,222	10,189	7,116	3,183	2,963
Kitchener	35,657	8,465	9,030	4,864	2,463	1,801
Sudbury	32,203	7,132	9,897	13,685	1,706	3,876
Brantford	31,948	8,182	667	1,841	636	927
Fort William	30,585	6,357	5,736	4,308	1,275	967
St. Catharines	30,275	7,443	4,872	5,522	1,546	1,452
Kingston	30,126	6,542	1,686	6,687	616	1,071
Winnipeg	221,960	48,963	39,698	3,175	14,326	4,742
Edmonton	93,817	23,082	20,376	14,620	5,576	5,061
Calgary	88,904	21,753	20,456	5,143	5,968	2,754
Regina	58,245	12,983	18,777	5,036	5,023	1,769
Saskatoon	43,027	10,352	17,552	−264	3,950	1,112
Vancouver	275,353	71,116	83,373	28,760	35,791	13,836
Victoria	44,068	11,455	355	4,986	1,229	1,631
Combined 27 cities	3,573,500	804,953	766,323	333,580	252,614	119,890
Total urban [2]	6,252,416	1,415,464	1,219,936	680,358	356,117	215,759

Source: Population Censuses, 1921–1941, Dominion Bureau of Statistics. Preliminary data on dwellings supplied by the Census Branch of the Dominion Bureau of Statistics.

[1] Dwellings for 1941 relate to occupied dwellings only, vacant dwellings being excluded.

[2] Includes Yukon.

TABLE 76.—SOME INDICATIONS OF RELATIVE IMPORTANCE OF ADJOINING URBAN AREAS OF THE MAIN CITIES OF CANADA, 1941.

City	Population (1941) of		Importance of fringe area Per cent	Relative growth (1931–41) of		
	City area	Fringe area		Metropolitan	City proper	Fringe area
Montreal	903,007	236,914	20·8	11·4	10·3	15·8
Toronto	667,457	233,034	25·9	11·1	5·7	30·0
Vancouver	275,353	76,138	21·7	14·0	11·7	23·3
Winnipeg	221,960	68,580	23·6	2·2	1·5	4·7
Ottawa	154,951	60,071	27·9	22·2	22·1	22·3
Quebec	150,757	50,057	24·9	16·4	15·4	19·4
Hamilton	166,337	9,773	5·5	7·6	6·9	19·7
Windsor	105,311	15,801	13·0	9·7	7·3	29·5
Halifax	70,488	21,341	23·2	23·8	18·9	43·4
London	78,264	8,476	9·8	—	—	—
Victoria	44,068	31,150	41·4	—	—	—
Saint John	51,741	14,043	21·3	12·0	8·9	25·4
Total—12 areas	2,889,694	825,378	22·2	11·7[1]	9·2[1]	21·1[1]

Source: Census Monograph number 6, "Rural and Urban Composition of the Canadian Population", Dominion Bureau of Statistics, 1938, pp. 36 ff. and Bulletin number A-13, 1941, Census. The cities of London and Victoria, counted in Metropolitan areas in 1941, were not included as such in 1931.

[1] Percentages based on 10 areas (excluding London and Victoria).

TABLE 77.—SOME COMPARISONS OF DWELLINGS AND HOUSEHOLDS IN CITY AND FRINGE AREAS, 1941.

City	Proportion in fringe areas		Ratio of households to dwellings		Average size of household	
	Dwellings	Households	City	Fringe	City	Fringe
Montreal	50,674	51,487	1·03	1·01	4·43	4·60
Toronto	59,525	62,605	1·23	1·06	3·80	3·72
Vancouver	20,055	20,541	1·13	1·02	3·41	3·72
Winnipeg	16,390	16,887	1·22	1·03	3·73	4·06
Ottawa	12,053	12,318	1·09	1·02	4·36	4·88
Quebec	7,011	7,742	1·05	1·10	5·36	6·46
Hamilton	1,890	1,926	1·09	1·02	3·86	5·07
Windsor	3,695	3,758	1·03	1·02	4·03	4·20
Halifax	4,396	4,703	1·12	1·07	4·67	4·54
London	2,142	2,166	1·04	1·01	3·72	3·91
Victoria	9,445	9,606	1·16	1·02	3·33	3·24
Saint John	2,945	3,022	1·03	1·03	4·23	4·64
Total—12 areas	190,221	196,761	1·11	1·03	4·0	4·2

Source: Bulletin number A-11, Dominion Bureau of Statistics, Census 1941. Data on dwellings and households supplied by the Census Division of the Dominion Bureau of Statistics.

TABLE 78.—PERCENTAGE DISTRIBUTION OF DWELLINGS CLASSIFIED ACCORDING TO TENURE, FOR THE 12 METROPOLITAN AREAS OF CANADA, 1941.

Metropolitan Area	Owned			Rented		
	Fringe area	City proper	Metro. area	Fringe area	City proper	Metro. area
Halifax	41·0	36·5	37·9	59·0	63·5	62·1
Saint John	49·8	22·6	28·4	50·2	77·4	71·6
Quebec	39·4	19·7	24·5	60·6	80·3	75·5
Montreal	26·8	11·5	14·8	73·2	88·5	85·2
Ottawa	36·8	29·4	31·8	63·2	70·6	68·2
Toronto	34·7	43·8	40·2	65·3	56·2	59·8
Hamilton	25·0	44·0	42·0	75·0	56·0	58·0
London	50·0	45·7	46·2	50·0	54·3	53·8
Windsor	56·0	37·2	40·0	44·0	62·8	60·0
Winnipeg	36·9	43·9	41·4	63·1	56·1	58·6
Vancouver	45·7	50·1	48·7	54·3	49·9	51·3
Victoria	59·2	45·8	52·4	40·8	54·2	47·6
Combined metropolitan areas	36·6	32·1	33·4	63·4	67·9	66·6

Source: Compiled by courtesy of Housing Census Branch, Dominion Bureau of Statistics.

TABLE 79.—PERCENTAGE DISTRIBUTION OF DWELLINGS, CLASSIFIED ACCORDING TO NEED OF EXTERNAL REPAIRS, FOR THE 12 METROPOLITAN AREAS OF CANADA, 1941.

Metropolitan Area	Repairs needed			Repairs not needed		
	Fringe area	City proper	Metro. area	Fringe area	City proper	Metro. area
Halifax	18·3	23·7	22·3	81·7	76·3	77·7
Saint John	21·2	19·9	20·2	78·8	80·1	79·8
Quebec	22·1	17·5	18·5	77·9	82·5	81·5
Montreal	11·8	13·1	12·9	88·2	86·9	87·1
Ottawa	28·2	12·0	16·4	71·8	88·0	83·6
Toronto	15·7	13·0	13·8	84·3	87·0	86·2
Hamilton	13·5	17·8	17·6	86·5	82·2	82·4
London	27·2	20·7	21·3	72·8	79·3	78·7
Windsor	33·7	22·5	23·9	66·3	77·5	76·1
Winnipeg	28·4	21·8	23·4	71·6	78·2	76·6
Vancouver	23·0	18·2	19·3	77·0	81·8	80·7
Victoria	12·4	16·7	14·7	87·6	83·3	85·3
Combined metropolitan areas	18·0	15·7	16·2	82·0	84·3	83·8

Source: Compiled by courtesy of Housing Census Branch, Dominion Bureau of Statistics.

TABLE 80.—PERCENTAGE DISTRIBUTION OF DWELLINGS CLASSIFIED BY DWELLINGS PER BUILDING, TYPE, ROOMS PER DWELLING, PRINCIPAL EXTERIOR MATERIAL AND STATE OF REPAIRS FOR THE CITIES PROPER, FRINGE AREAS AND METROPOLITAN AREAS OF MONTREAL AND TORONTO, 1941.

Item	Montreal			Toronto		
	City proper	Fringe area	Metropolitan area	City proper	Fringe area	Metropolitan area
Dwellings per building						
1	8·1	26·7	11·8	39·2	75·5	49·8
2	20·7	24·0	21·4	36·0	15·3	30·0
3	19·8	11·8	18·2	5·6	0·8	4·2
4–10	38·9	29·7	37·0	10·7	3·0	8·4
11–15	4·5	3·3	4·3	1·6	0·5	1·3
16+	8·0	4·5	7·3	6·9	4·9	6·3
Type of dwelling						
Single	6·9	25·9	10·7	36·9	75·4	48·0
Semi-detached	2·7	9·2	4·0	30·3	12·6	25·2
Apartments and flats	88·6	61·1	83·1	25·2	11·6	21·3
Rows and terraces	1·8	3·8	2·2	7·6	0·4	5·5
Rooms per dwelling						
1	2·7	0·3	2·2	1·0	0·3	0·8
2	3·2	0·6	2·7	2·7	1·0	2·2
3	11·2	5·5	10·0	7·5	8·3	7·7
4	25·8	21·2	25·0	8·7	17·7	11·3
5	20·7	24·2	21·4	13·3	25·9	16·9
6	20·9	21·0	20·9	34·9	30·8	33·8
7	9·4	11·3	9·8	11·3	8·3	10·1
8	3·5	7·1	4·2	11·3	3·7	9·5
9	1·1	4·0	1·7	4·5	1·8	3·7
10	0·6	2·2	0·9	2·4	1·3	2·1
11+	0·9	2·6	1·2	2·4	0·9	1·9
Principal exterior material						
Brick	85·0	73·7	82·8	85·3	69·6	80·7
Wood	3·8	16·4	6·3	4·1	21·3	9·1
Stucco	0·6	3·3	1·1	8·3	5·2	7·4
Stone	10·1	4·8	9·0	0·4	1·1	0·6
Other	0·5	1·8	0·8	1·9	2·8	2·2
State of repair						
External repairs needed	13·1	11·8	12·9	13·0	15·7	13·8
External repairs not needed	86·9	88·2	87·1	87·0	84·3	86·2

Source: Compiled by courtesy of Housing Census Branch, Dominion Bureau of Statistics.

TABLE 81.—PERCENTAGE DISTRIBUTION OF DWELLINGS CLASSIFIED ACCORDING TO TYPE OF FACILITIES IN USE, FOR THE CITIES PROPER, FRINGE AREAS AND METROPOLITAN AREAS OF MONTREAL AND TORONTO, 1941.

Facility	Montreal			Toronto		
	City proper	Fringe area	Metropolitan area	City proper	Fringe area	Metropolitan area
Heating system						
Steam or hot water	33·2	39·6	34·5	43·7	39·9	42·7
Hot air	3·2	7·3	4·0	49·9	45·9	48·7
Stove	61·6	50·8	59·4	6·1	13·7	8·3
Other	2·0	2·3	2·1	0·3	0·5	0·4
Water supply						
Running water	99·8	98·2	99·4	99·9	97·0	99·1
Hand pump in dwelling unit	0·1	1·0	0·3	0·1	0·6	0·2
Supply outside dwelling	0·1	0·8	0·3	—	2·4	0·7
Principal cooking fuel						
Gas or electricity	80·7	75·8	79·7	96·4	89·3	94·4
Wood	13·5	17·4	14·2	1·4	3·5	2·0
Coal	4·2	4·0	4·2	2·0	6·1	3·2
Coal oil and other	1·6	2·8	1·9	0·2	1·1	0·4
Principal heating fuel						
Coal	76·6	72·8	75·8	85·1	84·1	84·7
Coke	2·6	2·8	2·7	10·8	10·2	10·7
Wood	13·1	13·4	13·1	0·4	0·7	0·5
Fuel oil	6·4	10·2	7·2	3·6	4·7	3·9
Gas	1·2	0·6	1·1	0·1	0·2	0·2
Electricity	0·1	0·2	0·1	—	0·1	—
Bathing facilities						
Bath or shower						
Exclusive use	83·9	90·7	85·3	81·4	79·4	80·9
Shared	3·2	0·9	2·7	16·6	5·3	13·3
No bathtub or shower	12·9	8·4	12·0	2·0	15·3	5·8
Lighting facilities						
Electricity	99·7	99·4	99·6	99·7	99·2	99·5
Gas	0·2	0·1	0·2	0·3	0·2	0·3
Kerosene or gasoline	0·1	0·5	0·2	—	0·6	0·2
Toilet facilities						
Flush toilet						
Exclusive use	96·4	96·9	96·5	83·2	83·1	83·2
Shared	3·4	1·1	2·9	16·7	5·2	13·3
Chemical toilet in dwelling	—	0·1	0·1	—	1·2	0·4
Outside privy	0·2	1·9	0·5	0·1	10·5	3·1
Refrigeration						
Mechanical	25·1	34·4	27·0	44·4	42·1	43·7
Ice	65·0	61·2	64·2	44·0	45·9	44·5
Other	4·8	1·8	4·2	0·1	0·2	0·2
None	5·1	2·6	4·6	11·5	11·8	11·6

Source: Compiled by courtesy of Housing Census Branch, Dominion Bureau of Statistics.

TABLE 82.—OWNED AND TENANT DWELLINGS CLASSIFIED ACCORDING TO VALUE AND MONTHLY RENT, OWNED DWELLINGS ACCORDING TO TAXES PAID, MORTGAGES AND TERMS THEREOF, TENANT DWELLINGS ACCORDING TO HOUSEHOLD FURNISHINGS COVERED BY THE RENT PAID, FOR THE CITIES PROPER, FRINGE AND METROPOLITAN AREAS OF MONTREAL AND TORONTO, 1941.

Item	Montreal			Toronto		
	City proper	Fringe area	Metropolitan area	City proper	Fringe area	Metropolitan area
Owned homes						
Average value.....($)	3,622	5,654	4,391	4,356	4,158	4,288
Average cost of repairs.....($)	128	96	—	90	86	89
Percentage of homes with mortgage....	53·6	47·3	51·3	59·5	67·3	62·2
Average mortgage.....($)	2,016	2,738	2,293	2,305	2,397	2,306
Average annual mortgage payments ($)	248	303	266	220	251	231
Average mortgage rate of interest.....	5·7	5·5	5·6	5·7	5·5	5·6
Average property taxes.....($)	166	188	175	135	111	127
Average water tax.....($)	17	19	18	12	12	12
Tenant homes						
Monthly average rent.....($)	25	28	25	33	29	32
Percentage of rentals including:						
Furniture.....	5·1	1·8	4·6	3·0	1·0	2·5
Heating.....	23·4	19·4	22·7	36·9	25·3	34·2
Garage.....	7·5	11·9	8·3	29·1	48·2	33·6

Source: Compiled by courtesy of Housing Census Branch, Dominion Bureau of Statistics.

TABLE 83.—PERCENTAGE DISTRIBUTION OF DWELLINGS CLASSIFIED ACCORDING TO TENURE AND VALUE AND RENT, FOR THE CITIES PROPER, FRINGE AREAS AND METROPOLITAN AREAS OF MONTREAL AND TORONTO, 1941.

Value or rent	Montreal			Toronto		
	City proper	Fringe area	Metropolitan area	City proper	Fringe area	Metropolitan area
Owned homes						
Percentage of total households.....	11·5	26·8	14·8	43·8	34·7	40·2
Value ($)						
0–999.....	5·6	6·0	5·8	0·5	2·9	1·5
1,000–1,999.....	25·7	12·8	20·5	4·7	11·1	6·9
2,000–2,999.....	26·6	15·9	22·4	16·4	20·2	17·7
3,000–3,999.....	12·5	11·1	11·9	28·6	22·5	26·5
4,000–4,999.....	7·2	9·0	7·9	20·7	14·1	18·4
5,000–5,999.....	6·1	8·6	7·1	11·0	8·7	10·2
6,000–6,999.....	4·3	6·5	5·2	6·2	6·6	6·4
7,000–7,999.....	2·6	5·1	3·6	3·7	3·3	3·5
8,000–10,999.....	4·8	10·6	7·1	4·9	6·3	5·4
11,000–15,999.....	2·4	8·0	4·6	2·3	2·4	2·3
16,000+.....	2·2	6·4	0·9	1·0	1·9	1·3
Tenant homes						
Percentage of total households.....	88·5	73·2	85·2	56·2	65·3	59·8
Monthly rent ($)						
0.....	1·0	2·1	1·2	1·2	1·7	1·3
1– 9.....	1·3	1·0	1·2	0·4	1·2	0·6
10–14.....	16·4	8·6	15·1	2·4	6·3	3·3
15–19.....	28·0	24·7	27·6	7·3	13·3	8·7
20–24.....	19·1	20·8	19·5	12·0	16·3	13·0
25–29.....	10·3	11·3	10·4	18·2	17·4	18·1
30–34.....	5·7	6·0	5·7	17·6	12·2	16·3
35–39.....	4·9	4·3	4·8	13·8	12·0	13·4
40–49.....	6·2	7·5	6·4	13·6	11·1	13·0
50–59.....	3·5	5·6	3·8	7·1	4·7	6·5
60+.....	3·6	8·1	4·3	6·4	3·8	5·8

Source: Compiled by courtesy of Housing Census Branch, Dominion Bureau of Statistics.

TABLE 84.—DWELLINGS CLASSIFIED ACCORDING TO FACILITIES OR CONVENIENCES, MAJOR CANADIAN CITIES (POPULATION OVER 30,000), 1941.

City	Total dwellings [1]	Ice or mechanical refrigeration		Radio		Telephone		Vacuum cleaner		Auto		Radio, telephone, vacuum cleaner and auto	
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Halifax	13,571	9,500	70	12,600	93	9,900	73	4,700	35	3,900	29	2,300	17
Saint John	11,989	5,600	47	10,300	86	5,000	42	2,900	25	2,600	22	1,200	10
Quebec	27,177	17,500	65	24,100	89	14,600	54	6,500	24	5,200	19	2,700	10
Sherbrooke	7,667	5,900	79	6,800	91	3,800	50	2,200	29	2,100	27	1,000	13
Three Rivers	7,458	5,500	74	6,500	89	3,300	45	1,800	24	1,500	20	600	8
Montreal	201,388	179,200	90	170,200	86	89,300	45	55,900	28	31,000	16	17,500	9
Outremont	6,982	6,800	98	6,600	95	6,300	92	4,400	64	2,900	41	2,200	31
Verdun	16,119	15,400	96	14,900	93	6,300	39	5,900	37	2,900	18	1,200	7
Hull	6,121	4,700	78	5,100	84	1,800	29	700	11	1,100	18	300	5
Ottawa	32,705	29,500	91	30,100	92	24,100	74	15,800	49	13,100	40	8,800	27
Kingston	6,640	4,700	71	6,100	93	4,800	73	2,900	44	3,100	48	1,600	25
Toronto	145,606	126,500	88	133,100	93	104,600	73	72,000	50	55,000	38	36,400	25
Hamilton	40,267	35,400	89	37,800	95	19,000	48	19,900	50	17,200	43	8,500	21
St. Catharines	7,514	6,600	88	7,000	94	4,200	56	4,000	54	3,700	50	2,000	27
Brantford	8,222	6,400	78	7,300	90	4,000	49	3,900	48	3,300	40	1,700	20
Kitchener	8,515	6,000	70	7,800	92	5,100	60	4,700	55	3,800	45	2,300	27
London	20,639	16,100	80	18,900	94	12,100	60	10,800	53	8,400	41	4,900	24
Windsor	25,443	23,300	92	23,400	93	9,800	39	12,600	50	12,000	48	5,200	21
Sudbury	7,393	4,400	62	6,200	87	3,600	51	1,900	26	2,300	33	900	13
Fort William	6,367	2,400	38	6,000	94	4,100	64	2,500	39	2,300	37	1,300	21
Winnipeg	49,504	37,900	77	45,800	93	25,400	52	20,600	42	15,400	31	8,700	18
Regina	13,064	6,100	47	12,000	93	7,700	60	5,200	40	4,700	36	2,800	21
Saskatoon	10,538	4,800	46	9,500	92	5,000	48	4,600	45	3,600	35	2,000	20
Edmonton	23,449	10,100	44	20,900	90	12,800	56	9,800	42	8,800	38	5,100	22
Calgary	21,841	11,800	54	20,200	93	12,700	58	11,400	52	9,200	42	5,900	27
Vancouver	72,484	30,900	44	65,100	92	50,600	71	32,400	46	24,200	34	15,400	22
Victoria	11,633	4,000	35	10,100	88	8,000	70	4,800	42	3,900	34	2,400	21
Combined 27 cities	810,296	617,000	77	724,400	91	457,700	57	324,900	41	247,300	31	144,600	18

Source: Census 1941, Bulletin HF-1, Preliminary Bulletin (Housing) No. 28 and additional information from Housing Census Branch, Dominion Bureau of Statistics. Data rounded to nearest hundred.

[1] Includes vacant dwellings.

TABLE 85.—DWELLINGS WITH AND WITHOUT ELECTRICITY, IN NEED OF EXTERNAL REPAIRS, LACKING OR WITH ONLY SHARED USE OF PLUMBING FACILITIES, RURAL NON-FARM AREAS, CANADA, 1941.

Province	Total rural non-farm dwellings	With electricity		Without electricity	Dwellings lacking or with only shared use of				In need of external repairs	
					Bathing facilities		Flush toilet			
		No.	Per cent		No.	Per cent	No.	Per cent	No.	Per cent
Prince Edward Island	1,505	316	22·0	1,154	1,300	87·0	1,300	87·0	373	25·0
Nova Scotia	39,446	18,300	48·0	19,694	32,100	84·0	32,000	84·0	11,600	31·0
New Brunswick	33,513	15,300	47·0	17,149	26,900	83·0	25,700	79·0	13,100	40·0
Quebec	65,018	31,800	51·0	30,707	51,300	82·0	41,500	66·0	21,900	35·0
Ontario	179,628	123,800	71·0	50,557	111,700	64·0	109,000	63·0	45,000	26·0
Manitoba	34,888	18,300	53·0	15,946	26,900	79·0	26,600	78·0	11,600	34·0
Saskatchewan	13,039	1,200	9·0	11,572	12,300	96·0	12,600	99·0	4,600	36·0
Alberta	21,361	7,700	37·0	13,104	18,600	89·0	18,900	91·0	6·800	33·0
British Columbia	80,849	54,200	69·0	24,240	38,500	49·0	38,100	49·0	19,200	24·0
Canada	469,247	270,916	60·0	184,123	319,600	69·2	305,700	67·2	134,173	29·5

Source: Preliminary data for occupied dwellings by courtesy of the Housing Census Branch, Dominion Bureau of Statistics.

TABLE 86.—FARM HOMES CLASSIFIED ACCORDING TO CONDITION IN REPRESENTATIVE AREAS OF SASKATCHEWAN, 1942.

Areas	Condition of farm dwellings							
	Poor		Fair		Good		Total	
	No.	%	No.	%	No.	%	No.	%
Prairie Area—								
Eyebrow-Lacadena	90	20·1	333	74·3	25	5·6	448	100·0
R.M. Pittville No. 169	37	29·8	77	62·1	10	8·1	124	100·0
Wilcox	22	19·7	82	73·2	8	7·1	112	100·0
Weyburn-Alameda	86	32·5	168	63·4	11	4·1	265	100·0
Blucher-Colonsay	23	15·5	112	75·7	13	8·8	148	100·0
Total	258	23·5	772	70·4	67	6·1	1,097	100·0
Park Area—								
Balgonie-Qu'Appelle	26	32·5	52	63·4	2	4·1	80	100·0
Saltcoats-Churchbridge	53	26·2	133	65·9	16	7·9	202	100·0
Lashburn-Paynton	41	29·7	79	57·2	18	13·1	138	100·0
Melfort	28	27·4	59	57·9	15	14·7	102	100·0
Aylsham-Carrot River	47	50·0	39	41·5	8	8·5	94	100·0
Total	195	31·6	362	58·8	59	9·6	616	100·0
Pioneer Area—								
Pleasantdale	44	61·1	28	38·9	—	—	72	100·0
Albertville-Garrick	173	55·3	130	41·5	10	3·2	313	100·0
Preeceville-Lintlaw	61	50·8	54	45·0	5	4·2	120	100·0
Bjorkdale-Carragana	81	60·0	44	32·6	10	7·4	135	100·0
Crooked River	25	51·0	23	46·9	1	2·1	49	100·0
Big River	29	44·6	36	55·4	—	—	65	100·0
Meadow Lake-Makwa	64	64·6	28	28·3	7	7·1	99	100·0
Loon Lake	28	45·9	31	50·8	2	3·3	61	100·0
Goodsoil-Pierceland	59	70·2	23	27·4	2	2·4	84	100·0
Total	564	56·5	397	39·8	37	3·7	998	100·0
All areas	1,017	37·5	1,531	56·5	163	6·0	2,711	100·0

Source: "Some Observations on Farm Houses in Representative Areas of Saskatchewan", *The Economic Annalist*, Ottawa, November, 1943, pp. 69 ff.

TABLE 87.—FARM HOMES CLASSIFIED ACCORDING TO PRESENT AGE IN REPRESENTATIVE AREAS OF SASKATCHEWAN, 1942.

	Present age of dwellings (years)						
	1–10	11–20	21–30	31–40	Over 40	Total with information	
	%	%	%	%	%	No.	%
Prairie Area—							
Eyebrow-Lacadena	2·9	24·4	45·9	26·8	—	344	100·0
R.M. Pittville No. 169	3·5	17·2	50·0	29·3	—	116	100·0
Wilcox	—	19·3	38·8	39·8	2·1	98	100·0
Weyburn-Alameda	1·2	19·8	36·6	33·7	8·7	172	100·0
Blucher-Colonsay	10·4	20·9	35·7	31·3	1·7	115	100·0
Total	3·3	21·4	42·4	30·7	2·2	845	100·0
Park Area—							
Balgonie-Qu'Appelle	17·0	23·7	25·4	27·1	6·8	59	100·0
Saltcoats-Churchbridge	12·7	21·4	35·3	26·0	4·6	173	100·0
Lashburn-Paynton	18·8	32·8	36·9	11·5	—	122	100·0
Melfort	9·9	39·5	33·3	17·3	—	81	100·0
Aylsham-Carrot River	52·2	35·2	9·8	2·8	—	71	100·0
Total	19·8	29·2	30·6	18·0	2·4	506	100·0
Pioneer Areas—							
Pleasantdale	42·6	37·7	14·8	4·9	—	61	100·0
Albertville-Garrick	45·1	50·4	4·5	—	—	292	100·0
Preeceville-Lintlaw	41·6	32·7	15·8	9·9	—	101	100·0
Bjorkdale-Carragana	42·3	49·9	7·8	—	—	116	100·0
Crooked River	44·2	51·1	4·7	—	—	43	100·0
Big River	46·6	50·0	3·4	—	—	58	100·0
Meadow Lake-Makwa	50·0	48·9	1·1	—	—	90	100·0
Loon Lake	50·0	43·1	6·9	—	—	58	100·0
Goodsoil-Pierceland	71·3	28·7	—	—	—	80	100·0
Total	47·4	44·9	6·2	1·5	—	899	100·0
All areas	24·6	32·6	25·3	16·1	1·4	2,250	100·0

Source: "Some Observations on Farm Houses in Representative Areas of Saskatchewan", *The Economic Annalist*, Ottawa, November, 1943, pp. 69 ff.

TABLE 88.—FARM HOMES CLASSIFIED ACCORDING TO CONDITION IN REPRESENTATIVE AREAS IN ALBERTA, 1942.

Areas	Conditions of farm dwellings							
	Poor		Fair		Good		Total	
	No.	%	No.	%	No.	%	No.	%
Area in South East Alberta	916	48	853	45	128	7	1,897	100
Vulcan area	89	39	85	38	54	23	228	100
Lomond area	96	36	130	50	36	14	262	100
Irrigation areas	98	39	114	46	38	15	250	100
Bear Lake area	19	22	38	43	31	35	88	100
Fringe area in West Central Alberta	18	7	124	51	103	42	245	100
Peace River Fringe area	81	34	131	56	24	10	236	100
All areas	1,317	41·1	1,475	46·0	414	12·9	3,206	100

Source: Tables based on a farm business survey in Alberta; statistics by courtesy of Dominion Department of Agriculture.

TABLE 89.—FARM HOMES CLASSIFIED ACCORDING TO PRESENT AGE IN REPRESENTATIVE AREAS IN ALBERTA, 1942.

Areas	Present age of dwellings						
	1–10	11-20	21-30	31- 0	Over 40	Total with information	
	%	%	%	%	%	No.	%
Area in South East Alberta	10	18	26	38	8	134	100
Vulcan area	2	19	51	27	1	193	100
Lomond area	1	13	57	29	—	207	100
Irrigation areas	45	33	18	4	—	240	100
Bear Lake area	47	31	22	—	—	58	100
Fringe area in West Central Alberta	60	28	12	—	—	204	100
Peace River Fringe area	60	37	3	—	—	212	100
All areas	32·2	25·6	27·3	13·8	1·1	1,248	100

Source: Table based on farm business survey in Alberta; statistics by courtesy of Dominion Department of Agriculture.

TABLES 90 (a-f).—NATURE OF HOUSING ACCOMMODATION PROVIDED BY DWELLINGS BUILT UNDER PART I OF NATIONAL HOUSING ACT, CANADA, 1938-1941.

(a) VALUE OF PROPERTY (N.H.A. HOUSES 1938-1941).

Value of property	Number	Percentage
$ $		
2000 — 2999	2665	20·8
3000 — 3999	4681	36·5
4000 — 4999	3235	25·2
5000 — 5999	1626	12·7
6000 — 6999	222	1·7
7000 — 7999	144	1·1
8000 — 8999	87	0·7
9000 — 9999	52	0·4
10000 — 10999	49	0·4
11000 — 11999	21	0·2
12000 and over	39	0·3
Total	12,821	100·0

Average value of property—$3,947. Value of property includes expense for the acquisition of building lot and other incidentals like solicitors' fees.

(b) INCOME OF HEAD (N.H.A. HOUSES 1938-1941).

Income	Number	Percentage
$ $		
0 — 499	27	·2
500 — 999	82	·6
1000 — 1499	3414	26·6
1500 — 1999	4814	37·6
2000 — 2499	2450	19·1
2500 — 2999	877	6·8
3000 — 3499	510	4·0
3500 — 3999	221	1·7
4000 — 4499	152	1·2
4500 — 4999	61	0·5
5000 — 5499	102	0·8
5500 — 5999	12	0·1
6000 — 6499	36	0·3
6500 — 6999	8	0·1
7000 — 7499	18	0·1
7500 — 7999	7	0·1
8000 — 8499	5	0·0
8500 — 8999	2	0·0
9000 — 9499	1	0·0
9500+	22	0·2
Total	12,821	100·0

Average income of head—$2,069.

(c) CROSS-CLASSIFICATION OF VALUE OF PROPERTY AND INCOME OF HEAD OF HOUSEHOLD. (N.H.A. HOUSES, 1938-1941).

Loan value	Income of head								
	Total	Under $1000	$1000	$1500	$2000	$2500	$3000	$3500	$4000
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
$2000 — 2999	20·7	52·3	47·0	17·0	5·8	2·3	·4	2·7	1·2
3000 — 3999	36·5	24·8	45·3	47·2	25·5	16·0	10·2	4·5	4·5
4000 — 4999	25·3	13·8	6·5	30·2	42·1	31·8	25·5	24·0	13·9
5000 — 5999	12·7	7·3	1·0	5·1	22·8	39·8	45·4	38·9	26·7
6000 — 6999	1·7	·9	·1	·4	2·5	5·3	6·9	9·5	7·8
7000 — 7999	1·1	·9	·1	·0	·9	3·4	5·5	7·2	9·4
8000 — 8999	·7	—	·0	·1	·3	1·0	2·7	6·8	8·5
9000 — 9999	·4	—	·0	—	·1	·1	1·8	4·1	7·1
10000 — 10999	·4	—	—	·0	·0	·3	·8	1·8	8·2
11000 — 11999	·2	—	—	—	—	—	—	·5	4·7
12000 and over	·3	—	—	—	—	—	·8	—	8·0
Total cases	12,796	109	3,404	4,808	2,444	875	510	221	425

(d) FAMILY SIZE (N.H.A. HOUSES, 1938-1941).

Number of persons	Number	Percentage
1	342	7·8
2	1,035	23·7
3	1,264	28·8
4	1,071	24·5
5	466	10·7
6	108	2·5
7	46	1·1
8	18	0·4
9 or more	21	0·5
Total	4,371	100·0

Average size of family—3·2 persons. In the majority of cases, namely 8450, no information was available on family size.

(e) SIZE OF DWELLING (N.H.A. HOUSES, 1938-1941).

Rooms per dwelling	Number	Percentage
4	2,736	22·3
5	5,508	45·0
6	2,908	23·7
7	752	6·1
8	232	1·9
9	76	0·6
10 and more	47	0·4
Total	12,259	100·0

Average size of dwelling—5·2 rooms. No information on the size of dwelling in 562 cases.

(f) PREVIOUS RENT PAID. (N.H.A. HOUSES, 1938-1941.)

Monthly rent	Number	Percentage
$ $		
10 — 14	67	1·7
15 — 19	261	6·6
20 — 24	659	16·7
25 — 29	968	24·7
30 — 34	738	18·8
35 — 39	560	14·2
40 — 44	317	8·1
45 — 49	150	3·8
50 — 54	93	2·4
55 — 59	41	1·0
60 — 64	17	0·4
65 — 69	9	0·2
70 and over	19	0·5
No rent	37	0·9
Total	3,936	100·0

Average amount of monthly rent—$29. No information on rent in 464 cases.

Source: Special compilation by courtesy of Housing Census Branch, Dominion Bureau of Statistics. Information is provided for single-family houses only built by their owners or by contractors who sold houses built under the N.H.A. before construction was completed.

TABLE 91 (a-b).—PROPERTY IMPROVEMENT LOAN UNDER THE FEDERAL HOUSING ADMINISTRATION, UNITED STATES, 1935-1942.

(a) CLASSIFICATION BY TYPES, 1935-1942.

Year	Single family dwellings		Multi-family dwellings		Farm homes and buildings	
	Number	Amount(1)	Number	Amount	Number	Amount
		$000		$000		$000
1935	474,982	151,692	156,123	53,997	24,635	9,222
1936(2)	—	—	—	—	—	—
1937	969,427	301,692	265,530	98,364	52,093	19,890
1938	272,545	107,724	59,974	33,596	15,125	7,135
1939	374,435	153,124	73,640	40,973	24,623	10,208
1940	495,282	188,464	84,769	45,031	29,346	11,639
1941	524,134	194,082	77,525	43,208	31,121	12,412
1942	343,153	112,709	43,920	22,332	16,543	6,346
Total(3)	3,453,958	1,209,487	761,481	337,501	193,486	76,852

Year	Commercial and Industrial		Other	
	Number	Amount	Number	Amount
		$000		$000
1935	40,209	32,441	12,456	6,819
1936(2)	—	—	—	—
1937	124,788	118,637	50,285	21,919
1938	13,780	14,660	13,552	8,604
1939	18,775	17,660	18,497	10,583
1940	26,507	20,272	22,594	10,891
1941	29,946	21,563	23,490	11,381
1942	9,621	6,695	18,944	7,452
Total(3)	223,217	231,928	159,818	77,649

(b) PROPORTION OF TYPES (1942).

Type	Per cent of total	Average amount of loan
Single family dwellings	79·4	$328
Multi-family dwellings	10·2	508
Commercial and industrial	2·2	696
Farm homes and buildings	3·8	384
Other	4·4	393
Total	100·0	$359

Source: Federal Housing Administration, *Annual Reports*, Washington, 1935 to 1942.

(1) Includes finance charges and any fees permitted by the regulations.
(2) Data not available. (3) Excluding 1936.

TABLE 92.—AVERAGE CONSTRUCTION COSTS FOR HOUSING DEVELOPMENTS UNDER THE FEDERAL PUBLIC HOUSING AUTHORITY, UNITED STATES, 1938-1942.

Period	Net construction cost per dwelling unit(1)	Dwelling facilities: cost per unit(2)	Overall cost per dwelling unit(3)
Sept.-Dec. 1938	$2,948	$3,570	$4,765
Jan.-Dec. 1939	2,821	3,487	4,486
Jan.-Dec. 1940	2,577	3,172	4,103
Jan.-June 30, 1941	2,781	3,389	4,319
July 1, 1941-June 30, 1942	2,683	3,189	4,055

Source: United States Housing Authority and Federal Public Housing Authority, *Annual Reports*, Washington, 1938–1942.
(1) Cost of building the house including the cost of plumbing, heating and electrical installation.
(2) Net construction cost plus the cost of dwelling equipment, plus architect's fees, local administrative expenses, carrying and contingent charges.
(3) Dwelling facilities cost plus cost of land and its acquisition expenses, and non-dwelling facilities.

TABLE 93.—DIMENSIONS OF THE UNITED STATES PUBLIC WAR HOUSING PROGRAM BY ACTS, ADMINISTRATIVE AGENCIES AND TYPES OF ACCOMMODATION, AS OF JUNE 30, 1943[1].

	Allotted	Completed	Under contract
(1) *By Public Act:*			
Lanham Act, (849)	407,251	224,712	130,536
Lanham Act, Title IV (552) [2]	11,581	6,818	1,330
Defense Homes Corporation [3]	11,324	6,817	3,330
Temporary Shelter Act (9)	124,563	98,515	20,827
U.S. Housing Act—Defense Amend. (671)	46,201	38,511	7,457
U.S. Housing Act of 1937—War Use (412)	11,281	9,802	838
Army-Navy Appropriation Act (781)	16,503	15,518	825
Army Appropriation Act (649)	11,027	11,027	—
Maritime Commission	32,016	9,841	17,905
Defense Plant Corporation	7,731	3,922	3,143
New York State Housing Act	4,859	2,205	2,530
Total	684,337	427,688	188,691
(2) *By Administrative Agency*			
Federal Public Housing Authority	553,405	333,145	161,257
Public Buildings Administration [4]	10,839	6,076	1,330
Farm Security Administration [4]	151	—	95
Tennessee Valley Authority [4]	350	350	—
War Department	53,187	51,681	1,495
Navy Department	22,074	20,743	936
Maritime Commission	32,016	9,841	17,905
Defense Plant Corporation	7,456	3,647	3,143
New York State Div. of Housing	4,859	2,205	2,530
Total	684,337	427,688 [5]	188,691
(3) *By Type of Accommodation*			
Family Dwellings, all Acts	489,515	295,643	151,091
Dormitories, all Acts	156,023	105,429	29,050
Trailers (under Temporary Shelter Act only)	38,799	26,616	8,550
Total	684,337	427,688	188,691

Source: Special compilation by courtesy of National Housing Agency, Washington, 1943.
(1) Excludes conversions by the Home Owners' Loan Corporation.
(2) Applies to District of Columbia only.
(3) The $10,000,000 capital stock of Defense Homes Corporation is owned by the Reconstruction Finance Corporation. DHC was established in August 1940 for the purpose of developing war housing in areas where private building is lagging, and mortgages on its projects are eligible for insurance by the Federal Housing Administration.
(4) Acting as agents for the Federal Public Housing Authority.
(5) Includes units developed by other agencies and transferred for management.

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